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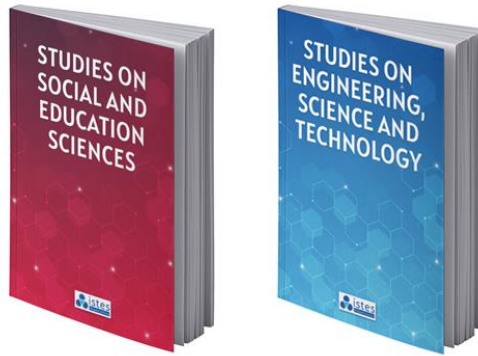Zhanat Alma Burch, Duke University, United States

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Content

IMPACT OF 3D PRINTING ON OCCUPATIONAL THERAPY STUDENT TECHNOLOGY EFFICACY

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This study examines a mixed method experiment, evaluating the impact of 3D printing on Occupational Therapy student's self-reported technology efficacy levels, before and after an educational module focused on 3D printing technology. Utilizing free and online software and university owned 3D printers, students were challenged to create client centered assistive devices. Software included free computer aided drafting software, slicing software, and an online design repository. Copyright and attribution licensing concepts were also addressed for design modification considerations and use in clinical settings. Participants explored adaptations of 3D designs to meet individualized client needs and integration of rehabilitative theories. Project-based implementation of 3D printing with 'real world' clients created increased student 'buy-in' and engagement. Participants were recruited from private, rural, higher education, occupational therapy students in pre-clinical lab courses. Comparisons between students groups exposed to 3D printing and a control group without exposure are assessed using quantitative and qualitative data. The control group expressed interest in further technology education in their field. Students show significant increases in technology focused self-efficacy between participant groups.

Keywords: 3D printing, occupational therapy, technology, interprofessional, education, self-efficacy, project-based

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ADOPTING LABOR MARKET REQUIREMENTS IN MECHANICAL ENGINEERING EDUCATION – CASE OF THE FACULTY OF MECHANICAL ENGINEERING IN KOSOVO

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The paper is a study about Higher Education of Mechanical Engineers based on Labor Market Requirements in Kosovo. It is based on a Survey of Faculty of Mechanical Engineering part of University of Prishtina "Hasan Prishtina", Kosovo. It is a study that describes changes in labor market requirements that is shifting towards advanced technologies, and challenges of Universities to be in line with these requirements. It describes the necessity of reconfiguration of teaching curriculum's, teaching infrastructure and cooperation with all stakeholders in order to increase knowledge and skills of mechanical engineers. In the paper are presented requirements, changes & advances in the Labor Market in the Kosovo as a Developing Country regarding the engineering jobs, particularly in Mechanical Engineering profile. Results of survey and results of other analysis are presented in table form, and based on the results conclusions are given about the effects of changes in the teaching process, teaching staff, students and graduates.

Keywords: higher education labor market, mechanical engineering, education strategy, engineering knowledge, new technologies

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CONTAMINATION EFFECTS IN PHOTOSYNTHETIC PIGMENTS AND THEIR STATISTICAL DATA PROCESSING OF POPULUS PLANTS IN METALURGICALLY AREA

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Leaves, because variacionale mechanisms and structures that contribute to absorption, reflection and transmission, appear as an environment with high heterogeneity, the optical properties of which depend on multiple dispersal of inside radiation (Bushmann et al., 1998). Diffusion of radiation inside the leaf determines the average optical path of the radiation, which exceeds several times the thickness of the leaf and thus, causes an additional effect on the radiation absorbed (Gitelson et al, 1996).This increases the probability that a large part of the radiation captured by pigments. In plants, chlorophyll is a pigment directly involved in the conversion of light energy into chemical energy. The main photoreceptor in chloroplasts of higher plants, is chlorophyll a. In addition to chlorophyll a, they contain chlorophyll b and carotenoids Measuring the parameters of Chl fluorescence are increasingly used in the last three decades of research in photosynthesis and plant ecology. Greater efforts in scientific research, in recent times, are made discoveries because relations - a result that exist between phenomena. The process of discovery of these deterministic models, in terms of the science of statistics, explained by the association. While quantitative expression of the form and extent of connections between phenomena appear through regression and correlation. Contamination effect reflected on photosynthetic activity of leaves was very high particularly on plants located nearer the metallurgical units. The elements monitored in the metallurgical area are: air suspended solids (LNP), solids with particle dimensions less than 10 microns (PM10), lead content (Pb) in the air, sulfur dioxide content (SO_2) in air, nitrogen dioxide content (NO_2) in air, ozone content (O_3) in air. In this territory the operators exercise their activity: Steel plant, "Kurum", cement factory "ECF", Ferro-Chrome plant "ACR" sh.p.k., former DARFO.

Keywords: chlorophyll fluorescence imaging, steel plant, induction kinetics, photosynthetic apparatus, contamination effect, statistical processing

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WOVE: INCORPORATING WORD ORDER IN GLOVE WORD EMBEDDINGS

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Word vector representations open up new opportunities to extract useful information from unstructured text. Defining a word as a vector made it easy for the machine learning algorithms to understand a text and extract information from. Word vector representations have been used in many applications such word synonyms, word analogy, syntactic parsing, and many others. GloVe, based on word contexts and matrix vectorization, is an effective vector-learning algorithm. It improves on previous vector-learning algorithms. However, the GloVe model fails to explicitly consider the order in which words appear within their contexts. In this paper, multiple methods of incorporating word order in GloVe word embeddings are proposed. Experimental results show that our Word Order Vector (WOVe) word embeddings approach outperforms unmodified GloVe on the natural language tasks of analogy completion and word similarity. WOVe with direct concatenation slightly outperformed GloVe on the word similarity task, increasing average rank by 2%. However, it greatly improved on the GloVe baseline on a word analogy task, achieving an average 36.34% improvement in accuracy.

Keywords: word embeddings, vector learning, attention mechanisms

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VIRTUAL LABORATORY AS A FORM OF ONLINE LEARNING

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Online learning represents the development of traditional educational systems; this development has created new goals in the management of education systems, the nature of learning, the role of teachers and all aspects of educational process. The virtual laboratory allows the student to safely conduct experiments and obtain results using a computer. In the present work, a virtual laboratory work has been developed to calibrate and estimate the uncertainty in measurements of technical flowmeters (electromagnetic flowmeter, flowmeter for variable pressure drop, a counter of amount of substance) in LabView's software. The development of this virtual laboratory was the research result of working flowmeters calibration installed on uranium mining wells by the method of borehole underground leaching. Laboratory work is performed on the laboratory stand, consisting of the hardware (physical stand) and the software. The laboratory stand consists of a stationary part, including a tank-measure with working fluid and calibrated technical flowmeters, and software and hardware complex (SHC), which includes standard Coriolis flowmeter, adjustable valve, Arduino controller and personal computer with softwares: LabView's graphic software and LIFA's application. The proposed calibration procedure assumes that all flowmeters are calibrated using the SHC installation not simultaneously, but in turn. The calibration procedure is based on the method of comparing the readings of the standard and calibrated flowmeters. The adjustable valve of the reference device and the Arduino controller, which are part of the SHC, will automate the verification process of the device throughout the measuring range of the verified flowmeter. The approbation of the developed laboratory work was carried out in the classroom with the students of "Automation and control" specialty; the materials for the implementation of the laboratory stand in the educational process of the Almaty University of Power Engineering and Telecommunications has been prepared.

Keywords: virtual laboratory, calibration of flow meters, uncertainty in measurement, labview's graphical software

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AN APPROACH TO THE SOLUTION OF INDUSTRIAL FLOWMETERS VERIFYING PROBLEM

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Kazakhstan's accession to the world community requires the restructuring and harmonization of the national system of technical regulation, in particular, in particular, the transition from the evaluation of error measurement tools to the evaluation of uncertainty measurement tools according to the International Guidelines for the estimation of uncertainty measurement. The article has developed a program for evaluating the uncertainty measurement of three types of Coriolis flowmeters included in the State Register of Measuring Instruments of the Republic of Kazakhstan, in the graphical programming environment NI LabView2014.The uncertainty of the measurement results is processed according to the developed algorithm. The created by this algorithm program allows to estimate uncertainties of measurements of three types of Coriolis flowmeters included in the State register of measuring instruments of the Republic of Kazakhstan: Optimass 2000 with converter MFC 300, Sitrans FC 430, Rotamass of RCCS, RCCT, RCCF, RCCR. The results of verification of the Optimass 2000 Coriolis flowmeter with the MFC 300 converter are presented, standard uncertainties of type A and type B, the total and extended uncertainties of the error of the verified flowmeter are calculated, and the uncertainty budget for the measurement is compiled. The obtained result of measurements of the mass flow of the Coriolis flowmeter Optimass 2000, obtained with the help of the developed program M = (400± 0.4) t/h, P = 0.95, shows that the uncertainty measurement is 0.4 t/h or 0.1% of the measured flow, which agrees well is complied with the accuracy of the readings of the selected flowmeter: 0.1% of the measured flow rate + zero point stability, and indicates the adequacy of the accepted mathematical error model of the Coriolis flowmeter.

Keywords: calculation of measurement uncertainty, verification procedure, coriolis flowmeter, labview2014

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INTEGRATING COMMON DATA ANALYTICS TOOLS INTO NON-TECHNICAL UNDERGRADUATE CURRICULA

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Aside from statistics courses, accessible data analytics skills are often excluded from traditional non-technical university programs. These are topics that are typically the domain of programs that focus on math, statistics, and computer science. Yet the need for these skills in non-technical disciplines is changing. A rapid expansion of data-related processes in organizations of many types requires individuals who have at least a working knowledge of common analytic tools. This article briefly describes three categories of data analytics tools that can be useful for graduates in any discipline. The first category covers descriptive tools that allow students to learn what is in a data set and what meaning can be made of it. The second category of tools teaches students how to predict likely outcomes based on relationships in past data. The final category introduces students to tools that allow them to segment data into useful clusters and classes and to build meaningful associations within the data.

Keywords: higher education, data analytics, descriptive, predictive, segmentation

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MACHINE FAILURE PREDICTION BASED ON NEURAL NETWORK ANALYSIS IN A STEEL CONSTRUCTION FACTORY

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The improvement of condition monitoring of critical failures of steel construction processes provides the development of maintenance planning. The main aim of predictive failure is to find how the system failure is affecting the performance of steel construction processes. Based on man-hour and production amount, the maintenance planner defines the necessity for intervention on the steel construction processes. For a steel construction, the monitored operational parameters may be used to provide predictive failure decisions. This study presents a tool regarding the operational performance of steel construction processes. The monthly real failures with man-hours and production amount are analyzed aiming at evaluating the critical failure patterns associated with specific failure modes. The findings of that failure route may be used to support the evaluation of any anomalous component operational condition that may affect steel construction processes. To generate a reliable failure prediction pattern, an artificial neural network model based on the Levenberg-Marquardt function as a training algorithm with MATLAB R2020b was developed. Also, defining normal and abnormal process failures, the linear regression model performance is analyzed. Based on the linear regression model, the adjusted R square value (0,08) is very low. Despite the regression failure prediction model, the proposed artificial neural network model's R square is 0,88 and it may be used to analyze the operational condition monitoring of steel construction components and equipment. The artificial neural network was able to detect anomalies in steel processing. The use of worker behavior towards risk indicates that the definition of undesired performance is strongly affected by the operator's man-hour and related to the amount of production as a ton. If the scheduling of the operator would be made according to these predictions, there would be less unconformity within the maintenance staff and unexpected job rotations may not demotivate the steel construction operators.

Keywords: steel construction, artificial neural networks, failure prediction, man-hour, production

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EXPERIMENTAL VALIDATION OF VOLTAGE REGULATION IN BUCK CONVERTERS THROUGH FRACTIONAL-ORDER PID APPROXIMATION

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Viability of a fractional-order PID approximation regulating voltage in buck converters through a single control loop is investigated. Fractional calculus approach is suggested due to it exhibits good robustness against parameter variations. The non-integer approach is integrated in the control strategy through a Laplacian operator biquadratic approximation to generate a flat phase curve in the system closed-loop frequency response, which results in the generation of the iso-damping characteristic, which allows us to modify the time domain response for the same stability margins. The synthesis and tuning process considers both robustness and closed-loop requirements to ensure a fast and stable regulation characteristic of the system step response. The resulting controller is easy implementable through RC circuits and OPAMPs in adder configuration. A proposal for controller electrical realization is suggested. Experimental data confirmed controller effectiveness. Robust stability analysis and performance comparison of typical PID controllers allow us to determine improvements. Superiority of proposed approach, which is determined through a comparison with typical PID controllers, confirms its viability to be used in highly efficient converters, such as Silicon-Carbide ones.

Keywords: fractional-order control, dc-dc buck converter, experimental validation, fractional-order pid controller

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TUMOR DYNAMICS UNDER IMMUNOTHERAPY: A TIME DELAY MODELING APPROACH

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Cancer remains a leading cause of death worldwide and traditional treatments such as surgical resection, chemotherapy, and radiotherapy may have limited benefits depending on the type of cancer and the stage at which it is diagnosed. Recent research into novel approaches to treatment has suggested that immunotherapy, which aims to optimize the body's own natural responses to combating disease through various mechanisms, may be a promising strategy that can improve prognosis for certain cancer types that are refractory to other treatment options. Quantitative models simulating the dynamics of tumor-immune system interaction, can facilitate both basic and clinical research efforts aimed at better understanding the impact of immunotherapy in the management of the disease. Previous studies of these dynamics have been well-described by various versions of predator-prey models. The goal of this study is to expand on previous work, by proposing an evolutionary modified predator-prey mathematical model based on a dynamic carrying capacity of the effector cells and discrete delays, in order to assess their impact on tumor dynamic. Our model suggests that tumor cells decline sharply according to rules that relate effector cell stimulations and discrete delays. Further system analysis allows us to arrive at critical conditions for tumor boundness and its equilibrium. By employing a sensitivity analysis, performed using Monte Carlo simulations, we determine the most influential parameters that describe the model, and use this information to prioritize our findings. Our analysis suggests that under certain conditions that include characteristic delays and a dynamic carrying capacity, it is possible not only to control tumor growth but also have tumor size reduced due to the response of the immune system.

Keywords: immunotherapy, dynamic carrying capacity, predator-prey model

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IS AI READY TO RUN A FACTORY?

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Interest in artificial intelligence (AI) has never been greater. In a 2019 survey conducted by the World Economic Forum, almost two-thirds of respondents would prefer taking orders from a robot over their manager; half have already turned to a robot instead of their manager for advice. AI, however, is about a lot more than robots. Smart factories represent Cyber-Physical Systems (CPS) where Internet of Things (IoT) enabled machines are capable of not only operating but also optimizing processes. The economic potential of self-managed machines is enormous. It's estimated that smart factories could contribute up to $2.2 trillion to the global economy by 2023. The operative words being "could" and "potential." Substantial hurdles remain before smart manufacturing becomes the new normal. For example, infrastructure costs are high. Data storage requirements are vast. And, real time machine learning requires unbelievable amounts of processing speed. How close are we to intelligent algorithms managing entire production facilities? In this paper we explore what's been accomplished and what remains to be solved before AI is managing enterprise resource planning systems.

Keywords: artificial intelligence, production systems

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COMPARATIVE ANALYSIS OF CELL-BASED PRODUCTS OBTAINED WITH DIFFERENT SYSTEMS FOR ISOLATION OF STROMAL VASCULAR FRACTION FROM HUMAN ADIPOSE TISSUE

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Adipose tissue-derived stromal vascular fraction (SVF) has been shown to be effective in treating a wide range of diseases. It is greatly important to develop and implement new devices to automate and standardize the procedure of SVF isolation in clinical practice. The aim of this work was to comparatively assess cell products obtained from human adipose tissue (AT) with two different systems based on mechanical and enzymatic isolation methods. A new system for enzymatic isolation of SVF from AT uses a disposable separator, which is a transparent plastic cylindrical container with two chambers separated by a nylon filter with a pore size of 100 μm, and collagenase NB 6. Six labelled channels with connectors are used for the input and output of components. In the mechanical method, the SVF was obtained from AT by a double syringe system. Two adapters with mesh diameters of 2.4 and 1.4 μm were used to disperse the AT and obtain cell fractions. AT specimens were obtained from 14 healthy donors (women aged 25-49 years) undergoing a liposuction procedure in a plastic surgery clinic. All patients provided informed consent before surgery. The use of two systems utilizing mechanical and enzymatic procedures showed different results in terms of the yield, viability, and phenotype of the nucleated cells. Compared with the enzymatic method, the mechanical system produced products with a higher volume of residual oil, number of destroyed cells, and connective tissue particles. The cell product obtained by the enzymatic method was characterized by a higher yield of nucleated cells/1 ml of fat ($0.96\pm0.46\times10^{6}$) compared with the mechanical system ($0.21\pm0.20\times10^{6}$; $p<0.01$), as well as higher viability of the cells ($86.25\pm4.15\%$ vs. $35.50\pm18.36\%$, respectively; $p<0.01$). Therefore, our data demonstrate that the method of AT treatment has a significant impact on the characteristics of the SVF cells obtained.

Keywords: adipose tissue, isolation systems, stromal vascular fraction, stem cell technology, regenerative medicine

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EVALUATION OF VON MISES STRESS IN D2 BONE IMPLANT INTERPHASE IN PLATFORM SWITCHED SHORT DENTAL IMPLANTS USING 3D FINITE ELEMENT MODEL (FEM)

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This study looked at the stress distribution pattern in terms of eqicrestal and subcrestal implants placed at different depths using short platform switched dental implants with 100N and 200N force in the vertical and oblique direction. 3D FEM was used to model the mandibular posterior molar region, which was made up of uniformly thick 1.5mm cortical bone with an inner core of cancellous bone. The research used two implants length (6x4.6x3.5mm and 7.5x4.6x3.5mm) and two implant diameters (6x5.8x4.5mm and 7.5x5.8x4.5mm). The applied force was 100N, 200N in an axial (0°) and oblique direction (15°, 30°) for realistic simulation. All models were created by ANSYS WORKBENCH software. von Mises stress is evaluated in both cancellous and cortical bone at various depths. Translations interpreted on x, y and z-axis with ten noded tetrahedron elements with 3° of freedom per node. All five position of platform switched short osseointegrated implants analyzed by finite element model simulations exhibited different stress-based biomechanical behavior, dependent on bone geometry, the direction of the force applied and on the depth of implant placement. D2 cortical and cancellous bone exhibited minimum stress when implants placed 1.5mm subcrestally with implants dimensions of 7.5x5.5x4.5mm with a vertical load at 0°. Oblique forces were more deleterious than axial forces. Subcrestal implant placement resulted in reduced stress in the cortical and cancellous bone. 5.8mm implant diameter exhibited minimum stress than 4.6mm implant diameter.

Keywords: Finite Element Model (FEM), short dental implants. eqicrestal, subcrestal implants position, von mises stress, and platform-switched implants

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SORTING REAL NUMBERS INTO A LINKED LIST ON THE PRAM MODEL

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We study the sorting of real numbers into a linked list on the PRAM (Parallel Access Machine) model. There are EREW (Exclusive Read Exclusive Write) PRAM, the CREW (Concurrent Read Exclusive Write) PRAM and the CRCW (Concurrent Read Concurrent Write) PRAM. In CRCW PRAM, multiple processors can read or write on a memory cell in a step. Since CRCW allows multiple processors to read or write on a single memory cell, there are some arbitrary schemes designed to perform the actions. Hence, there are Common CRCW, Priority CRCW and Arbitrary CRCW PRAM Models. The algorithm proposed in the paper runs on the Common CRCW PRAM Model and thus run on the Arbitrary and Priority CRCW Model. We show that n real numbers can be sorted into a linked list in constant time using n^2 processors. Previously, n numbers can be sorted into a linked list using n^2 processors in O(loglogn) time.

Keywords: parallel algorithms, parallel sorting, crcw (concurrent reat concurrent write), erew (exclusive read exclusive write), crew (concurrent read exclusive write)

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INTERNET OF THINGS APPLIED ON ASSISTIVE ROBOTICS

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With the Americans with Disabilities Act (ADA), the past two decades have seen a proliferation of Assistive Technology (AT) and its enabling impact on the lives of people with disabilities in the areas of accessing information, communication, and daily living activities. Due to recent emergence of the Internet of Things (IoT), the research of assistive robotics has been contributing to assisting humans to manipulate and communicate with the robot in complex unstructured environments. The ongoing revolution of Internet of Things (IoT), together with the growing diffusion of robots applied in everyday life and industry, makes Internet of Robotic Things (IoRT) as the future direction for assistive robotics research. New advanced technologies and services are explored in assisting humans. This study provides an overview of the IoT and applications into robotics based on the building blocks of the IoT, along with recent trends and issues relevant to accessing technology for people with disabilities. This research also discusses the technologies in IoT that would benefit the applications of assistive robotics. The most important research challenges to be faced are also highlighted.

Keywords: assistive robotics, internet of robotic things (iort), human-robot interaction (hri)

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COPPER (II) BROMIDE AS AN EFFICIENT CATALYST FOR THE SELECTIVE PROTECTION AND DEPROTECTION OF ALCOHOLS

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The synthesis of highly functionalized molecules usually require several steps dealing with the protection and deprotection of those functional groups.[1, 2] The choice of protecting groups is often critical for synthesis success, specially for the total synthesis of complex natural products and analogs.[2,3] Benzyl type protecting groups are among the most commonly used, due to their deprotection conditions orthogonal to other protecting and functional groups[1-3], and they have been applied to the protection of alcohols, thiols, amines, and acids.[1, 2] Nevertheless, their introduction is not always simple due to the basic or acid condition required,[2] in order to solve this problem, we recently described a convenient and efficient method based on Copper bromide catalyst (CuBr$_2$) has been developed for the protection of Primary and secondary alcohols with bis(4-methoxyphenyl)méthanol (BMPMOH) in good yield using CuBr$_2$ as catalyst in acetonitrile at room temperature.[4] Deprotection could easily be achieved using the same catalyst but in ethanol. Both Cu-catalyzed protection and deprotection were orthogonal to other methods and fully compatible with other functional groups. The mildness of these protection and deprotection methods as well as their selectivity render them very useful tools for total synthesis.

Keywords: protection of alcohols, déprotection, copperii bromide, bis(méthoxydiphenyl)méthanol , ch3cn

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APPROXIMATION PROCEDURE FOR DETERMINING OSCILLATION PERIOD OF FRAME STRUCTURE

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Dynamic analysis can be used to find dynamic displacements, time history, and the frequency content of the load. One analysis technique for calculating the linear response of structures to dynamic loading is a modal analysis. In modal analysis, we decompose the response of the structure into several vibration modes. A mode is defined by its frequency and shape. Structural engineers call the mode with the shortest frequency (the longest period) the fundamental mode. Holzer and Stodola's approximate methods for determining the forms and periods of oscillation for frame structures are presented in the paper. An approximation method, based on approximate relative stiffnesses of the storeys and the ground floor, is analyzed and proposed. The results obtained by the proposed approximate procedure do not greatly deviate from those obtained by more accurate calculations. It is therefore emphasized that the method can be used both in practice and for checking computer-based analysis of complex systems. At the end of the paper was given a comparison of the results obtained by approximate methods and some engineering softwares.

Keywords: mass, stiffness, inertia force, spring deflection, spring force, mode shape

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PODCASTING FOR TEACHING AND RESEARCH IN HISTORY: A CASE STUDY

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The distribution and consumption of digital learning resources in the social sciences is likely to explode as a result of the impact of educational practices in the time of Covid. Students and teachers who would otherwise not have sought or gained experience in digital learning have, out of necessity in the pandemic, gained experience and mastery with online instruction. What have we learned about the theoretical and practical applications of such resources? Since 2016, I have hosted a podcast of in which I discuss historical issues of potential interest to all, including students in my courses. I am a full professor of History at a State College in the United States, with more than 35 years of experience teaching history. Having had had "a head start" in researching and discovering the potential of this platform for student learning, I will explore the following: 1. The theoretical advantages of facilitating student learning via podcasting. 2. How professors can present podcasts themselves at low cost to themselves and no cost to students. 3. New avenues of reaching and teaching students with history education through podcasting. These include: a. Creating through comment sections on my podcast website global learning communities. b. Posting select podcast episodes in online courses on the subject of their teaching. c. Ways of making disappear any learning curve for the students in the use of these podcasts. d. Avenues for researching the value of podcasting in teaching and research. f. My creation and distribution of audio narration (in podcast episodes) of short-form public domain "classic" stories and documents that can both engage students in wider learning opportunities branching off from the course subject, and also awaken them to the entertaining possibilities of learning in history. This presentation will be thirty minutes in length, including five minutes for audience questions.

Keywords: history, education, teaching with technology, scholarship of teaching and learning

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MODERN PRE-OPERATION EDUCATION OF SURGIONS: PRINCIPLES FORMING OF CLINICAL DIAGNOSIS

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At the examination of a patient, a doctor evaluates clinical picture of the disease that manifests itself by a great number of various general and local symptoms caused by an etiological factor and pathogenesis changes of the different organs and systems of the organism. A purpose of the surgical patient examination is making of early, correct and precise individual diagnosis, and, based on it, effective and timely rendering of medical care via either pharmacologic nonsurgical methods or surgical intervention. Making a diagnosis is the most important task of the diagnostic and treatment process; solution of this task includes creative analysis of the disease clinical course, formulation of the provisional diagnosis and following determination of the additional examination methods scopes and diagnostic algorithm. From a formal aspect, diagnosis is based on the nosological principle and has to contain the name of a certain disease or injury according to the accepted nomenclature and classification of diseases; it is of importance to medical statistical goals and scientific research. Assessment of the findings of additional methods of examination in the aggregate with clinical signs allows carrying out of differentiation of similar diseases and gives an opportunity to make a clinical (final) diagnosis and define treatment approach. Concomitant diseases do not have etiopathogenetic relation to the underlying disease but able to influence substantially on the character of clinical picture, choice of the extent of other methods of examination and treatment.

Keywords: education, pre-operation, principles, clinical diagnosis

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WHAT IS THE HISTORY? WHAT IS IT FOR? WHO ARE ITS PROTAGONISTS? A STUDY WITH SPANISH THIRD YEAR STUDENTS OF PRIMARY EDUCATION

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This research aims, on the one hand, to analyze the social representations of History as a school subject, its purposes and protagonists of three groups of spanish students in the third year of Primary Education (n = 71) -8 years old-, from three schools in Castilla y León (Spain). On the other hand, it is proposed to verify the existence of statistically significant differences in the variables under study according to the sex and educational center of the participating students. The study is positioned in the mixed research approaches, in particular, in the sequential exploratory design (DEXPLOS), in which the research process combines the collection and analysis of qualitative data (phase 1), through open-ended questionnaires, with quantitative data, obtained on the basis of the former and the ad hoc construction of a measurement scale (phase 2). From this last phase, the study adheres to the methodological principles of cross-sectional, descriptive and correlational non-experimental designs. The results obtained show the continuity and consolidation of positivist curricular approaches in the historical education from the first educational stages, regardless of the students' sex and educational center. These approaches are characterized by a technical, linear and non-inclusive conception of perceived learning, far from contemporary social problems, the social life of the present and its future projection.

Keywords: history teaching, basic education, purposes of history taught, protagonists of history, epistemological representations of history

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IDOL AND WITHOUT IDOL

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Idolatry; people should worship God, show respect, love and fear, and direct them to him by accepting the spirituality of any other creature. Before Islam was adopted in the Arab world, people used to express their feelings through worship and poetry. This period in which the pre-Islamic Arab world lived was called the period of ignorance and they attributed this period as a dark period. The religion of Islam replaced idolatry with belief in God (the only creator) and people were asked to live the moral doctrine of the Quran in which his teaching was written. Similarly, paganism has been a part of many civilizations and it is known that there are groups that continue this tradition even today. This article is not intended to express any opinion after a comparison and comparison between beliefs. It consists of understanding the similarities and content differences of the way people live their beliefs in the age of Jahiliyya in today's life. It will be tried to understand the differences and similarities between the sculptural objects created as a remedy for people to cope with the problems in their lives by presenting the works that have been made since the existence of art education, which we can refer to today or as a long period. The harmony and disagreement between the periods will be tried to be done within the framework of the understanding of the 19th century philosopher Friedrich Nietzsche that what constitutes the center of his philosophy is the "affirmation of life" by questioning all kinds of doctrines that exploit the enthusiastic energy of the person, no matter how socially valid.

Keywords: idol, sculpture, Nietzsche

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ACCESS TO LEARNING: REALITY OR MIRAGE IN AN INCREASINGLY VIRTUAL WORLD?

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COVID-inspired shifts to virtual learning have facilitated education in extraordinary times while vividly revealing increasing disparities in learning access. An imperative beckons to revisit guarantees of a free public education as "fundamental" and better define what it means to "provide each child with an opportunity to acquire the basic minimal skills necessary for the enjoyment of the rights of speech and of full participation in the political process" (San Antonio Indep. Sch. Dist. v. Rodriguez, 411 U.S. 37, (1973)). Without such clarity, the Supreme Court's misplaced justification of disproportional school funding in Rodriguez makes access to learning even more elusive for many. Optimally, seismic shifts in thinking about education should arise from COVID-fanned flames, especially considering new virtual learning platforms in the context of education's "fundamental role in maintaining the fabric of our society" (Plyler v. Doe, 457 U.S. 202, 221 (1982)). While expectations for education will likely differ from those pre-COVID, Plyler and recent disputes in Gary B. v. Whitmer (6th Circuit) and Cook v. Raimondo (RI) portend the deprivation, for an enhanced student underclass, of learning tools and/or essential supports to use them, irrespective of privilege, disability, or otherwise marginalized status. Against such a legal backdrop, this study examines inequities of opportunity, tribulations of superimposing education's brick-and-mortar digital resources on home-based classrooms, and risks of leaving too many unable to benefit from the true dawn of virtual learning. Despite digital access, one can still be technologically deprived and fail to engage in learning. Vital conversations reflecting communities' needs and capacity, expectations and roles, must take place. Without them, we risk losing a generation's entitlement to education that, while still being argued as "fundamental," is, at the very least, "deeply rooted in our history and tradition" (Gary B. v. Whitmer, No. 18-1855/1871, p. 43 (6th Cir. 2020)).

Keywords: opportunity inequities, virtual learning, student underclass, engagement, "fundamental" education

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DIGITAL LITERACY: ONLINE RESEARCH AND LEARNING FOR STUDENTS WITH READING DEFICITS

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Technological advancement, such as e-learning, require that virtually all students engage in learning on the internet. However, it is currently unknown how students with reading deficits compare with their peers with typical reading skills in these digital instructional environments. The purpose of this study was to investigate students with reading deficits would perform on online research tasks compared to their peers with typical reading skills? 32 college students with reading deficits (RD) and 33 college students with typical reading (TR) skills were presented with four types of questions regarding the Keto diet and searched for information on the internet to answer the questions. The four questions were definitional, procedural, analytical, and argumentative questions. RD group had significantly lower scores than TR group for the definitional and procedural questions ($p < .0001$). For the analytic questions, there was no difference between the groups' responses on the benefits or the side effects of the Keto diet ($ps > .01$). However, on the questions asking how the Keto diet contributes benefits/side effects, RD group had lower scores than TR group ($p < .0001$). Finally, for the argumentative question, RD group had low scores than the TR group ($p = .0001$). In conclusion, students with RD performed similar to their peers when they were asked to simply list facts by searching for information online (e.g., list benefits of the Keto diet). However, the students with RD performed lower than their peers on tasks that requiring deeper learning such as the procedural and analytic tasks. In conclusion, for students with weak reading abilities, technology may not be as helpful as we expected. Considering that digital learning technology is omnipresent in students' academic and personal lives, educators should provide specific and explicit guidance on online research and learning as well as work to strengthen these students' literacy skills.

Keywords: online research and learning, reading deficits, technology, digital learning

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PROPOSED STRATEGIC PLAN TO IMPROVE STUDENT RETENTION AND ENROLLMENT AT UNIVERSITIES: A PERSPECTIVE STUDY

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This article aims to study the impact of the institution's strategic plan and the given student benefits and/or provided services on the student retention/enrollment rates. Institutional sustainability and student performance/motivation can be maintained with proper guidelines and enrollment management practices aligned with the university mission. Here, we propose a guided institution's strategic plan for King Abdulaziz University (KAU) including discussions on the university mission/vision statements, admission standards and counselors, recruitment procedures, student engagement, student support services, finances, and academic advising. The introduced strategic plan is believed to improve student retention and enrollment via: (a) applying the IDEAL initiative to promote campus diversity, (b) providing first-year support and assigned full-time advisors for guidance and persistence, (c) understanding applicant profiles for effective recruitment, (d) training and engaging students in several workshops and activities, (e) offering welcoming-week orientation to familiarize them new students with the university requirements and guidelines, and (f) giving space to students to encourage in-class discussions and make them feel comfortable to share their ideas, from applying the "Turn and Talk" strategy. Strategic plans have a direct impact on the delivery of high-quality and cost-effective services to meet students educational and financial needs, with realistic/quantifiable goals necessary for student recruitment/success.

Keywords: strategic plan, retention, enrollment, recruitment, student engagement

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EDUCATIONAL LEADERSHIP FOR DEVELOPMENT OF STRUCTURAL PLANS, CULTURAL DIVERSITY, CURRICULUM STANDARDS, AND FACULTY ENGAGEMENT

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Educational leaders need to be able to make outstanding decisions for planning, organizing and directing others. Herein, we discuss the impact of educational leadership in developing structural plans, cultural diversity, curriculum standards, and faculty engagement. Cultural diversity remains as an unresolved issue, but student's negative attitudes associated with their differences in background and culture can be overcome with a proactive structure (prevention rather than cure!). University leaders should seek better learning environments through diversification to foster collaboration, creativity, equality, and innovation. Pre-planned curriculum standards and class outlines are critical to have a high-quality education. A research-based and/or a coursework-based program can be carefully chosen according to the student's needs (interests) prior to the implementation of such planned standards. Well-established standards must be periodically assessed to achieve expected outcomes. Approachable, honest, caring, inspirational, and respectful leaders promote faculty engagement to incorporate their experiences. The strategy of "telling benefits" and "speaking academic" are useful and effective to engage faculty in the ongoing activities and assessments. The leadership plan and the role of leaders must be both utilized to identify the deficiencies and the interests of current students; hence, achieving the educational organization's mission, intended goals, and student success from the engagement.

Keywords: educational leadership, diversity, curriculum, engagement, assessment

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THE REALITY OF APPLYING TEACHERS FOR LEARNING DIABILITIES CRITERIA ACCORDING OF SOME VARIABLES IN JUBAIL CITY

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The aim of the research is to identify the reality of learning disabilities teachers 'application of the diagnostic tests with of some variables (gender, experience, academic qualification) in Jubail city. The descriptive comparative approach was used for its suitability to the nature of the current research. The sample was chosen from the research community of 29 teachers from them. 18 male teachers and 11 are female teachers, in an intentional way. The results of the research indicated that there are statistically significant at 0.05 level differences in the application and use of diagnostic criteria between male and female teachers and were in favor of teachers, as well as the existence of statistically significant differences in the application and use of diagnostic criteria between male and female teachers in favor of the higher educational qualification variable, and in favor of the more experience variable. According to that, the researcher suggested a set of recommendations represented by the importance of applying and using all diagnostic tests when diagnosing people with learning disabilities.

Keywords: learning disabilities, diagnostic tests, teachers of learning disabilities

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SPOKEN AND WRITTEN COMMUNICATION NEEDS OF AVIATION MANAGEMENT TRAINEES

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The need to investigate the communication skills required of a group usually arises upon demand from the stakeholders including the employers, passengers, clients and others. The common reasons for stakeholders to consult course developers or language practitioners regarding the development of a specific purpose course include poor language proficiency and lack of professional communication skills amongst personnel whose jobs require efficient communication. The needs analysis (NA) method is often used to explore the necessary communication skills at the workplace including business, medical and aviation. In aviation, the AE's program content is based on the stakeholders' communication requirements. Having said that, there are two main objectives of this study. Firstly, this study aims to investigate the importance of English as a medium for communication amongst AVM personnel serving in local and foreign-based companies within Malaysia. Secondly, it aims to determine the spoken and written communication activities that aviation management personnel are frequently involved in the aviation industry. Based on the findings, the NA revealed that the English language is vital in developing professional communication skills among AVM trainees as they require English proficiency for speaking and writing activities.

Keywords: needs analysis, aviation management, aviation English (AE)

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SECONDARY PRE-SERVICE TEACHERS' EXPEIRINCES OF INTEGRATING STATISTICAL INVESTIGATIONS IN THEIR CURRICULUM AREAS

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Statistics is omnipresent in media and in the everyday lives of citizens worldwide. It straddles several disciplines (sports, economics and sciences) because of its wide range of applicability. In recognition of the importance of statistics in both school and out of school settings, there has been a movement in many countries to include statistics at every level in the mathematics curricula. When teaching statistics teachers are encouraged to use realistic and student-relevant context to motivate and engage students. Linking statistics to other curriculum areas can provide that context, giving links between the world around us and the context-specific learning of statistics. However, less attention has been paid to the development of students' statistical thinking across curriculum areas. This paper focuses on pre-service secondary teachers' views on integrating statistical investigations in their curriculum areas. As part of design-based study, pre-service teachers were required to explore the use of statistical inquiry cycle in their learning area. They planned, taught and reflected on the processes of conducting a statistical investigation in a curriculum learning area of their choice. Teacher reflections indicate that while teachers were positive about integrating statistics across the curriculum, they also identified some challenges.

Keywords: pre-service teachers, statistical investigations, curriculum integration, design research, teacher reflections, benefits and challenges, implications for practice and further research

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MALE COUNSELORS' EXPERIENCES WITH CHILD VICTIMS OF TRAUMA

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Men are underrepresented in the counseling profession, are socialized to be independent, and discouraged from seeking help. Exposure to others' trauma can cause secondary trauma, with cumulative deleterious effects. The purpose of this qualitative phenomenological study was to explore the lived experiences of male counselors who work with children who have experienced trauma. Six male counselor participants were identified, semi structured interviews were conducted; then a hermeneutic interpretation through the lens of constructivist self-development theory elucidated participants' experiences. The 13 themes generated from this data included: (a) counselors' use of an eclectic theoretical approach, (b) majority of the clients had experienced trauma, (c) experiences of vicarious trauma, (d) increased empathy and growth; (e) negative impact of vicarious trauma, (f) help-seeking behavior, (g) denial of help-seeking behavior, (h) additional training, (i) coping skills, (j) supportive supervisors, (k) peer consultation, (l) supervisor role, (m) world is unsafe/people are bad, and (o) increasing knowledge.

Keywords: male counselors, vicarious trauma, qualitative, hermeneutic, csdt

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THE PHILIPPINE NATIONAL POLICE (PNP) IN BICOL REGION: A COMMUNITY SURVEY ON ITS PERFORMANCE

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The Philippine National Police (PNP) vision gave a clear mandate in enforcing the law, maintaining peace and order, and ensuring public safety and internal security with the active support of the community. This paper determined the community approval rating on the performance of the PNP along the delivery of programs and services, public trust, respect, and public safety and security. The survey involved 1,178 sample respondents from the different sectors in the region who were determined through multi-stage sampling techniques. Analysis of the data was made through a mixture of quantitative and qualitative techniques. It was found out that the PNP gained a positive very high trust and respect rating with a favorable commitment of support on their campaign against criminality from the different sectors in the region. The provinces of Camarines Norte and Camarines Sur have the highest public safety and security rating while the Province of Catanduanes has the lowest net approval rating from the community. The judiciary sector provided the lowest net approval rating on PNP programs against criminality while the academe has the lowest net approval rating on PNP campaign against illegal drugs. It is recommended that the PNP may strengthened their partnership and collaborations with the different sectors along their programs on peace and security towards a more responsive and committed patriotic community in Bicol region. Feedbacks from the community may be considered by the PNP in the region for continuous improvement of the delivery of the programs and services to the public.

Keywords: community survey, PNP performance, trust rating, respect rating, safety and security, Bicol region, Philippines

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SOCIAL MEDIA USAGE EXPERIENCES OF YOUNG ADULTS DURING THE COVID 19 PANDEMIC THROUGH SOCIAL COGNITIVE APPROACH TO USES AND GRATIFICATIONS

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Since social media is a powerful information transfer and sharing tool in this modern world, it has become more used especially during the pandemic. It may be important to examine the use experiences of individuals in order to understand the impact of social media on individuals during the pandemic period. For this reason, the aim of the study is to examine the experiences of social media use in the pandemic of young adults who use social media actively in detail with thematic analysis. The study group of the research consists of 52 young adults between the ages of 20 and 25 studying at the university. In line with the thematic analysis, four main themes are found: "reasons for using social media", "shares", "social comparison", "self-regulation and addiction". Each theme is explained in the context of the relevant literature through social cognitive approach. The use of social media in crisis can become a coping mechanism; on the other hand, it may create situations that can negatively affect individuals. Examining the variables that cause the effect of social media use especially during the pandemic can provide awareness of the factors to be considered in using social media consciously.

Keywords: social media, addiction, pandemic, thematic analysis

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THE RELATIONSHIP BETWEEN INSTRUCTIONAL LEADERSHIP AND COMMITMENT TO CHANGE IN IMPLEMENTING EDUCATIONAL CHANGE

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The aim of this quantitative correlational study is to investigate the relationship between principal instructional leadership and three dimensions of teacher commitment to change in implementing School-Based Assessment (SBA) among secondary school teachers in Selangor, Malaysia. The data was obtained from 402 secondary teachers through stratified random sampling. The data was collected using an adapted questionnaire to measure principal instructional leadership and teacher commitment to change. Data was analyzed using SPSS in the form of mean, standard deviation, and Pearson correlation analysis. The findings showed that the level of instructional leadership of the principal as a whole was high with a mean of 3.70 and a standard deviation of 0.57. The level of affective commitment to change among the teachers was high with a mean of 4.16 and a standard deviation of 0.67, while normative commitment to change was also high with a mean of 3.90 and a standard deviation of 0.63. However, continuance commitment to change showed a low mean of 2.02 with a standard deviation of 0.83. The findings revealed there were significant relationships between principal instructional leadership and the three dimensions of teacher commitment to change. This study offered a new perspective in the educational field by proving the impact of instructional leadership on the three dimensions of commitment to change.

Keywords: instructional leadership, commitment to change, school-based assessment

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THINKING -- AND TEACHING -- OUTSIDE THE GENDER BINARY BOX: STUDY PROPOSAL FOR PROMOTING GENDER INCLUSIVITY INSTRUCTION IN U.S. PUBLIC SCHOOLS GRADES K-1ST

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This study proposal will provide a theoretical framework based on persuasive communication theories for educators seeking to make their curriculum more gender inclusive for contemporary school settings. Too many U.S. public schools lack educational materials for young students in health classes on the value of understanding and respecting gender diversity and all individuals on the gender spectrum (i.e., non-binary gender, gender fluid, transgender, cisgender, etc.). Even though I, as the primary researcher, argue that health/sex education classes in both elementary and middle schools should require this valuable instruction for all grade levels in all public schools -- since it is one of the most important ways that we can help students establish positive relationships with their own bodies and healthy, constructive attitudes towards their peers' self-identifications -- very few states do. This communication-based proposal is focused on the twin goals of awareness and implementation of age-appropriate course materials for educators working with school-aged children in the 5-7 age range on topics surrounding understanding and respecting gender diversity in themselves and their peers. Moreover, a process model approach that reaches these young learners can help educators when they work with vulnerable school-aged children in the gender minority.

Keywords: gender inclusivity, health communication, education in elementary schools

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THE GLOBAL IMPACT OF THE COVID-19 PANDEMIC AND ONLINE LEARNING: A MULTINATIONAL STUDY

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There has been a significant proliferation of Information Communications Technology (ICT) throughout 21st Century society as education is undergoing a rapid transformation. The impact of Covid-19 has yielded profound changes, including substantive advances in global communication and ultra-high speed information access and retrieval in classrooms. Innovative ICT curriculum takes on numerous dimensions with the ability to revolutionize the learning experience, captivate and empower learners and challenge them to excel. The immediate demand for blended learning across the curriculum connects online and face-to-face classroom experiences, balances digital currency and fast forwards education. Content area instruction, particularly in science, technology, engineering and math (STEM) fields, that incorporates a variety of platforms clearly sets the stage for successful growth and alleviates affective filters that may compromise learning. The unforeseen impact of the Covid-19 pandemic on classrooms has resulted in a rapid transformation into innovative virtual learning environments that are connected, flexible, and collaborative. Incorporation of technology in various forms is at the forefront of best practices for 21st century learning coupled with accurate assessment that carefully measures student growth and achievement. While ICT is becoming the foundation of success for learning, and incorporation of technology and a strong commitment to sustainable strategies is a goal positively impacting students and educators, it is crucial to ask further questions regarding the impact of ICT globally that holds a number of opportunities for specific and practical academic pursuits. This study and investigation will follow up on the crucial questions thatrelate to the impact of Covid-19 on virtual educational activities globally and provide a preliminary round of research for subsequent expansive international, empirical research. When asked of individuals from a variety of countries, they will provide a framework for further rigorous research and add inspiration to the quest for success in the online learning environment.

Keywords: virtual learning, ICT, COVID-19

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THE IMPACT OF JOB CHALLENGE AND JOB SATISFACTION ON POLICE PERFORMANCE

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Even in our present innovative period, police organizations are still largely reliant on dated worn-out traditional tactics of management and supervision that emphasize rules, regulations, orders, and directives over creativity and service. Today, we know this antiquated style of management is associated with service stagnation, decreased effort, and an erosion of motivation to meet present-day calls for public service improvements. We also know there is an accelerating urgency to improve police services as calls for enriched interactions with citizens grow increasingly resolute from social enterprises, civic projects, and government agencies. What we do not know is how job challenge, variety, and work satisfaction of officers can be leveraged to meet the emerging service demands of the people. We wondered if increasing the importance of police work itself and relieving officers from traditional supervision tactics could lead to better police service. To investigate this, we used a rigorous quasi-experimental cross-sectional survey to gather data that allowed for hypothesis testing through aggregation, scaling, counter-balancing and tabulation. The findings of this research came into view when we examined data through correlations, regression, ANOVA, and coefficient models. We found officers become disengaged with the importance of their work and put in less effort when they feel dissatisfied with job challenge, autonomy, and satisfaction. This examination tells us police agencies need effective management techniques and supervisors who recognize the contemporary perspectives of service expectations and challenge their officers to meet these expectations through engaging and challenging job assignments. We revealed doing this improves police services and enriches relationships between officers and the community they serve.

Keywords: law enforcement, policing, police, job challenge, job satisfaction, police service, performance, supervision

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EXPERIENCES OF WORKING MOTHERS IN THE WORKPLACE: A PHENOMENOLOGICAL RESEARCH

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This study includes a fieldwork which is related to ideas evaluate women as a vital element of sustainable development. The main problem of the study was determined as "what are the experiences of working mothers in the workplace". In the light of the main research problem, qualitative research method was preferred. Position of working mothers in business life was aimed to present within the scope of phenomenological research design. In this context, data was obtained from seven working mothers through semi-structured in-depth interviews. It is significant for the study that women participated in interviews by experiencing both "time flexibility" and "place flexibility" from flexible working styles due to pandemic during data collection process. Data obtained by purposive sampling technique will be analysed through "ATLAS.Ti 8" programme. Discourse analysis technique will be utilised in this study and it will be revealed how "working mother" phenomenon is constructed in the workplace in Turkey.

Keywords: working mother, workplace, maternal wall, time flexibility, place flexibility

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PREPARING TEACHERS TO TEACH FROM A GLOBAL PERSPECTIVE

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Education policies worldwide deal with the question of how to best prepare students for participation in a globalized society. Consequently, teacher-education programs seek to equip pre-service teachers (PSTs) with suitable knowledge and pedagogical skills to prepare students to perform well in a changing world. The research objectives are to identify the factors included in PSTs' perception of global education and the factors that motivate them to be trained to teach it. Integrating these factors in the design of teacher-training programs that focus on global education may yield effective results. A total of 105 PSTs in their freshman year completed a survey pertaining to their (1) demographics; (2) knowledge of global issues; (3) information sources regarding global issues (4) perceptions of global education; and (5) motivation to be trained in a global education perspective. The constructs that emerged from the Exploratory Factor Analysis (EFA) indicated that PSTs perceive the global education perspective to be based on two main approaches: (1) the social justice approach; and (2) the knowledge, skills, and multi-cultural approach. Using the paired samples t-test revealed that the social justice approach was the most prevalent approach among this cohort. EFA also revealed three motivational factors for training according to the global education perspective: (1) instrumental-competitive motivation; (2) didactic-multicultural motivation; and (3) social justice motivation. One-way repeated-measures ANOVA demonstrated that among the three, the didactic-multicultural approach was the most prevalent factor. Consequently, programs intended to train teachers according to the global education perspective should combine knowledge of both global contents (especially as related to social justice) and global pedagogy. Furthermore, a focus on didactic strategies will give teachers a practical way to construct their professional identity as social justice agents.

Keywords: teacher education, global education, student teachers, globalization, 2030 compass

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TEACHERS AND TECHNOLOGY INTEGRATION: COACHING THE TECHNOLOGY RELUCTANT TEACHER

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This paper presents the findings and practical applications from a qualitative research study that examined the positive impact of peer coaching on technology integration. The study followed 3 peer coaching pairs through an 8-week period as they sought to improve their technology integration skills. One technology-reluctant teacher was paired with one technology proficient teacher in each pair. Themes highlighted from the study to be included in the presentation are the interpersonal dynamics involved in peer coaching, what a positive peer coaching team looks like, the impact of peer coaching on teachers' confidence, and how using peer coaching can improve technology integration better than other forms of professional development. This study also has a broader application as peer coaching has the power to positively impact professional development for any educational change, however, during the Covid-19 pandemic, this research is more valuable than ever before.

Keywords: technology integration, technology, peer-coaching

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INTEGRATION OF DIGITAL TECHNOLOGY AND EDUCATIONAL PLANNING FOR TEACHING AND LEARNING RELIGION IN HIGHER EDUCATION INSTITUTIONS

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Prior research has examined the integration of not only the mature digital technologies in education, but also the arising technologies dynamically inserted in the field of education. However, research on the technology integration in Religious education is yet limited. The motivation of this study was the impact of the COVID-19 pandemic on education and the transition to distance-learning courses in all institutions of higher learning. The main objective of this study is to describe the fulfillment of learning theories in distance learning, emphasizing in applications in the field of Religion. The contribution of this paper is the exploration of the available technological tools, their selection criteria and the required skills to properly use them. The research was conducted during the autumn semester 2020-2021 and regarded an undergraduate optional course of the School of Theology. The sample is 200 students, who attended classes and took the final examination of the course, exclusively online. The evaluation of the course, which embedded technological features, was made through a questionnaire delivered to the students at the end of the semester. The findings show that it is very important to evaluate application of new approaches and utilize new teaching and learning tools in Religious Education.

Keywords: religious studies, technology, distance-education, educational planning, university students

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LOOKING AT NATION-BUILDING FROM THE GROUND UP: STUDENT-LED RESEARCH AND OUTREACH

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Numerous education slogans encourage students to take their learning beyond the classroom such as thinking outside the box, being future-ready, or approaching learning as a journey. In sympathy with Raphael Samuel's Oxford History Workshop Movement as well as the German Barfußhistorikerbewegung (Barefoot Historians' Movement), my colleagues and I aimed to create opportunities for collaborative historical research that could link our campus with the wider community. Although historians tend to have a small target audience mainly composed of other academics, history like so many humanities disciplines has the potential to reach a much wider public and provide relevant perspectives on global issues. Thus, we undertook this project, first, to empower students—we wanted them to flex their creative and analytical skills—and, second, to demonstrate the productive collaboration of amateurs and non-experts when it comes to expanding historical knowledge and understanding. Toward these ends, we designed a teaching platform that incorporates student-initiated research, student leadership, peer mentorship, and extra-university collaboration. Inspired by preparations to commemorate the 1819 British landing in Singapore, we asked, "Why 1819?" We wanted to consider the various stakeholders that made 1819 a significant date in Singapore's history, which meant looking at British policy and strategic planning but also the role of local inhabitants and diaspora and migrant communities in building the island's infrastructure. And beyond content-driven concerns, we hoped to foster a collaborative, bottom-up approach that included voices and issues beyond the ones typically found in the public school curriculum. We ran the first session in 2017-18 and the second session in 2018-19. What started as a modest ambition to foster student-led projects has become a comprehensive research mentorship workshop that has realized two primary objectives: supporting student leadership and research work and building public engagement and collaboration.

Keywords: nation building secondary school education, secondary school education, collaboration, active learning

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ANALYSIS OF EMOTIONAL INTELLIGENCE AND EMPATHY OF PHYSICAL EDUCATION TEACHERS

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The study aims at determining emotional intelligence of physical education teachers from their empathy. Studies have shown that people with high EI have greater mental health, job performance, and leadership skills although no causal relationships have been shown and such findings are likely to be attributable to general intelligence and specific personality traits rather than emotional intelligence as a construct. On the other hand, if emotions are more centrally characterized by a combination of beliefs and desires, then grasping these beliefs and desires will be more essential to empathy. The ability to imagine oneself as another person is a sophisticated imaginative process. Empathy's influence extends beyond relating to other's emotions, it correlates with an increased positive state and likeliness to aid others. Measures of empathy show that mirror neurons are activated during arousal of sympathetic responses and prolonged activation shows increased probability to help others. The participants of the study involve 178 physical education teachers. In the study was used "Trait Emotional Intelligence Questionnaire –short form (TEQue-SF) developed by Petrides and Furnham (2001) for analysis of physical education teachers' emotional intelligence and also the Turkish version of Empathy Quotient (EQ) that was developed by Baron-Cohen. Approximately, 18% of variable in factor called well-being of teachers' emotional intelligence is clarified by empathy of physical education teachers. Physical education teachers' emotional intelligence has significant effect on the variable for empathy that teachers have in factor of "self-control and socialness". About 19 % of variable in emotion factor for teachers' emotional intelligence is demonstrated by empathy. The empathy of physical education teachers represents about 18% of variable for the level of teachers' emotional intelligence.

Keywords: physical education teachers, emotional intelligence, empathy

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VALIDATION THROUGH CLASSICAL ALLUSION: CREATIVE REFERENCING AS A SOCIAL VECTOR OF VALIDITY IN CLASSICAL CHINESE MEDICAL TEXTS

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Traditional Chinese Medicine (TCM) enjoys a long history of continuous practice. In the modern day, it has undergone rigorous testing to show medical efficacy. However, in the pre-modern period, the social forces that shaped Chinese culture carried a great influence into the validity metric of TCM. This paper examines the underlying social vectors, which supported a corpus of textual material, which was considered inviolate and canonical. Further, the canonical tradition developed several behavior patterns of self-validation. Unlike the modern approach of innovation and testing which allows results to drive acceptance and validity, the TCM approach of the classical period relied on validation through classical allusion; new ideas needed to be draped in overture to older canonical sources to be considered meaningful. However, the medical necessity to advance interventions to presenting conditions created a subtle social dynamic in the medical community of creative interpretation to clothe the new in reference to the old. This social vector continued through the majority of the history of Traditional Chinese Medicine and continues to have some subtle influence even in the modern day.

Keywords: medical sociology, chinese medicine, medical anthropology, cultural history, medical history

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IDENTIFYING DIFFICULTIES WITH CULTURAL VALUATION OF THE ENVIRONMENT

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This paper seeks to identify problems with cultural valuation of the environment. Global importance has been given to cultural valuation as an important policy consideration as recognized in the Millennium Ecosystem Assessment (MEA) initiated as early as 2001. Various scholars have emphasized the role of cultural valuation as a counterweight to the utilitarian approaches that tend to dominate the environmental valuation literature. However, cultural valuation continues to face challenges in adoption even today two decades after it was introduced by the United Nations through the MEA. Nevertheless, it is not always clear that critics of cultural valuation have fully understood what cultural valuation is and how it is to be implemented. This paper seeks to provide a more nuanced description of cultural valuation as a field, as well as to identify its criticisms that do not always give an organized treatment of the field. In doing so, this paper hopes to help pave the way forward for improvements to be made to cultural valuation in reality.

Keywords: environmental valuation, culture, environmental politics, millennium ecosystem assessment, cultural valuation

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SECONDARY MATHEMATICS TEACHERS' NOTICING SKILLS DIFFERENT TYPES OF EVIDENCE FOR STUDENT THINKING

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There are different types of evidence that reflect students' thinking in classroom interactions. Verbal responses, gestures, facial expressions, behaviors can be shown among these. The aim of the study is to reveal the skills of secondary mathematics teachers with different professional experience years to notice different types of evidence of student thinking. For this purpose, the study was designed within the scope of case study, one of the qualitative research methods. The data of the study were obtained through video-based interviews conducted with five secondary mathematics teachers in the fall of 2020. Six video section containing different types of evidence for video-based interviews were shown to teachers. In the interviews, participating teachers were asked to explain what they noticed in videos containing different types of evidence, interpret the situations they noticed, and make instructional decisions. Such skills are important for teachers to be able to carry out sensitive teaching practices. Descriptive analysis technique will be used in analyzing the data obtained by purposeful sampling method. It will be revealed what types of evidence teachers use based on their experiences, how they interpret them, and what kinds of instructional decisions they make depending on the types of evidence.

Keywords: teacher noticing, secondary mathematics teacher, video, mathematical thinking, professional development

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EXAMINING THE PICTURE BOOK PRODUCTION PROCESS: THE CREATIVE AUTONOMY OF PICTURE BOOK ARTIST

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The publishing industry is struggling and has been hard hit in recent years. When the entire publishing industry is declining, only children's books are growing steadily especially picture books. From the production side, in some cases, the picture book has two authors, which are writers and artists. In the process of creating picture books, the writer has his/her own picture in their head during the journey of creating the story, but the artists might have different ideas of the picture. Therefore, the editor becomes the middle man to communicate with these two authors. The aim of this article attempts to explore how picture book artists collaborate with editors and writers and from the perspective of artists and to see what extent has the artist's creative autonomy been realized. This article involved Semi-structured In-depth interviews, and interviewing a publishing house that is willing to give the young artist the opportunity in Taiwan, and the interviewees comprised of three different roles which are artists, writers, and editors. This article may be of importance of explaining the dynamic relationship between picture book artists, writers, and editors, as well as providing the picture book publisher with a better understanding of the diverse characteristics of artists and different possibilities of collaboration

Keywords: picture book, artist, art, creative autonomy, editor, writer

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EPISTEMIC DECOLONIZATION IN THE BRAZILIAN HIGH SCHOOL SCIENTIFIC CURRICULUM

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The curriculum is characterized as an official document consisting of a space in which there are political, ideological, and cultural disputes. In addition, its existence configures the importance of making choices about what will be taught by teachers. In this sense, such choices are characterized by political and ideological elements, since determining what is taught is, at the same time, defining the type of society that one wants to build. In this sense, this article presents an investigative study on decolonization at an epistemological level that is manifested in the Brazilian scientific curriculum, highlighting the normative document for high school. Thus, based on the fact that Brazil is a historically colonized country - from an economic and social point of view - we have a hypothesis studied that there are elements in the Brazilian science curriculum that contribute to colonizing at the knowledge level. In order to identify such elements with documentary research, we used the analysis of critical discourse to show which categories of socio-cultural operators manifest decolonizing elements. As initial results, aspects of the discourse of the curriculum are presented, materialized in the form of rule and pedagogical orientation, which corroborate with theoretical aspects about epistemic colonization.

Keywords: decolonizing, curriculum, physics education, science education

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MULTIDISCIPLINARY DEVELOPMENT OF SUSTAINABLE EDUCATION

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The reason for the interest in the use of learning technologies that protect health in education is not to harm the physical and psychological health of learners in the process of training and education. After the creation of new types of innovative educational institutions, the knowledge load of learners increases, the increasing learning load can disrupt the normal development of students' central nervous system, vision, musculoskeletal system. This seriously harms the health of students, and only 5-15% of school leavers are healthy. To partially eliminate this problem, the project "Healthy Education-Healthy Nation" is being implemented in Azerbaijan to develop sustainable education. During the implementation of the project, its goals were expanded psychopedagogically in a local school. The goal was to develop students' thinking while maintaining their health. To achieve this goal, changes were made in the learning process: - the purpose of training was replaced by the purpose of learning; - active training - replaced by constructive training; - The structure of the knowledge of subject programs is based on a complete and fuzzy model; -New tasks that ensure the operational development of student thinking, price criteria were created to measure the level of development. In the process of changing learning, students develop their thinking and watch how they grow up healthy and smart. The article reflected the work done within the project: research, studies, applied technologies, physiological condition of students, the level of social and intellectual skills.

Keywords: healthy education, training on the move, transition to learning without teaching, constructive training, fuzzy subject programs

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INNOVATIONS IN THE USE OF ONLINE APPLICATIONS BY A REMOTE, INTERNATIONAL FINNEGANS WAKE READING GROUP

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The sudden transfer to online learning during COVID-19 made clear the need for increased research and experimentation within the digital humanities; the efficient distribution of information is critical to producing equitable learning opportunities within online and in-person classrooms. Virtual classroom environments require new pedagogical approaches to both synchronous and asynchronous learning. One such virtual classroom experiment was an international Finnegans Wake Reading Group, convened online by art historian James Elkins. The group spent ten months experimenting with various online applications for annotating, organizing, visualizing, and presenting information about James Joyce's Finnegans Wake, one of the most complicated literary objects ever written. In the process, the members also developed innovative new reading methods using online software applications such as Google Suite, Perusall, Miro, Creately, and Twine. This resulted in a host of new methods for presenting and sharing literary knowledge in intuitive and accessible ways. Altogether, the Finnegans Wake Reading Group produced new knowledge within the fields of digital humanities, higher education pedagogy, and Joyce studies. This paper examines the group's experimental ethos and their scholarly output to present both a model for further inquiry into the uses of software in collaborative textual exegesis and a summative assessment of their new tools for collaborative research and online classroom pedagogy.

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FINTECH FOR GROWTH: THE CASE OF ALBANIA

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This study aims at exploring the potential of financial sector innovation (fintech) as an instrument to boost economic development in Albania. The Albanian economy witnessed high growth rates before the 2008 global financial and economic crisis, which slowed down and to date has not succeeded to recover at the same pace. Amidst the sluggishness of the economy, low innovation and ICT integration levels, structural reforms, and EU-integration aspiration, the consecutive natural disasters (i.e., the earthquake of 2019, and the COVID-19 pandemic) paralyzed and kneeled heavily the economy. From a sectoral point of view, growth has been sustained by different sectors interchangeably, presenting high volatility and instability. Over the years, the financial system in Albania despite its immaturity and fragilities has proved to be relatively stable, liquid, and well-capitalized (Bank of Albania, 2020). Large financial resources are being held by the banking system under deposits, while investment opportunities are still low. Can a boost in innovation and development/ integration of ICT transform the financial system into an engine/driver for the sustainable development of Albania? In this study, we use a questionnaire-based survey to explore: (i) customers' (current and potential) perspective towards innovative financial products and ii) strategies perspective on innovation and ICT integration in the financial market and approach to innovative financial products and fintech. Our findings suggest that there's little knowledge and awareness about financial products among customers while usage propensity is assessed as positive. Financial institutions have long relied on traditional products, while there are space and capacity to move forward towards more innovative products.

Keywords: fintech, Albania, development, banks

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DECENTRALIZATION IN ALBANIA: ACHIEVEMENTS, CHALLENGES, AND PERSPECTIVES

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Decentralization of local governance is a relatively new process in Albania, progressing at a different pace in its political, administrative, and fiscal/financial dimensions. The year 2015 marks a turning point for decentralization in Albania, where several defining changes were implemented aimed at deepening decentralization in Albania, improving the efficiency and effectiveness of local public service provision in all 61 municipalities in the country. Since then, municipalities have become responsible for a series of services with a wide impact on the quality of life of citizens, and in the process, a transparent and predictable intergovernmental transfer system was introduced. Own source revenues from taxes and fees also have been subject to changes since 2015, but yet their contribution to total financial resources remains low suggesting for a limited fiscal capacity of municipalities. While the size of total available financial resources being spent by municipalities has widened from 1.8% in 2015 to 3.1% of nominal GDP in 2019, municipalities in Albania are assessed as lacking financial autonomy or being highly dependent on intergovernmental transfers (Toska & Bejko, 2018; Co-PLAN, 2020; Toska & Shutina, 2020). This study aims at providing a critical view on decentralization reform in Albania, outlining the achievements, challenges, and perspectives following the COVID-19 pandemic. Our findings suggest that the decentralizing reforms and the decentralization model implemented failed to produce the intended results, especially in terms of fiscal/financial autonomy of municipalities.

Keywords: decentralization, public finance, fiscal autonomy, COVID-19

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IMPROVEMENT OF STUDENT'S ENGAGEMENT IN A DIGITAL HIGH EDUCATION ENVIRONMENT DURING THE COVID-19 OUTBREAK: A REVIEW STUDY

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The relevance and significance of digitalization of the professional educational process are caused by the need to adapt the classical education and training system to completing the education in a pandemic COVID 19 crisis. Building competent digital schooling today is a significant priority of universities around the world. With the new requirement in the academic world, all universities intend to introduce the online course in their working process, supporting the universities' target COVID-19 epidemic time. The unexpected and unorganized closing of our nation's university buildings due to the COVID-19 pandemic forced teachers to face the most vibrating and fast modification of perhaps any profession in history. During digital learning, many students feel that they miss the operative collaboration and group working with partners to construct knowledge, wherein digital learning, both students and teachers have to forget about the human aspects, not because they are behind the screen. Physical distance doesn't have to mean social distancing. Emotional content in the classroom is the key to engaging both students and teachers. Both students and teachers need interaction to build trust and create meaningful discussions. So they need to develop a healthy connection as soon as they start with digital learning. This paper will present the dilemma of using digital learning in high education institutions and suggest objective solutions regarding efficient student engagement in the digital education environment during the COVID-19 epidemic time and teaching complex process.

Keywords: students engagements, digital education, digital environment, COVID-19, pedagogical course design

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THE IMPACT OF A COURSE BASED UNDERGRADUATE EXPERIENCE (CURE) ON SELF-CONFIDENCE, THINKING, AND INTERPERSONAL SKILLS OF STUDENTS ENROLLED IN A NUTRITIONAL SCIENCE COURSE

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Academic research promotes a student's quantitative learning and builds their analytical, motivation and cognitive skills. The Course-Based Undergraduate Research Experience (CURE) exposes students to professional skills. While implementations of CURE in introductory STEM courses have been done, there have been few in the field of nutrition. Thus, the purpose of the study was to assess the impact of CURE on essential aptitudes such as self-confidence, thinking, and interpersonal skills of students enrolled in a Nutrition Science course. One hundred eleven participants enrolled in a Nutrition course in the Health and Wellness Department at Binghamton University completed a pre- and post- CURE survey. Participants were undergraduate students between the ages of 18 to 23 from various majors. The CURE component was taught by the same instructor. Data were collected between Fall 2018 and Spring 2019. The pre-test was administered during the second week of class and the post-survey upon the completion of the research project. Consent was obtained by completing both surveys. The instructor was blind to the identity of the students' participation in the study. By comparing pre- and post- surveys, a Student Paired t-test was used to assess the efficacy of CURE in improving the several skills of the students enrolled. CURE in a non-lab-based setting showed improvements in research skills (r= 0.572-.669, P < 0.001), cognitive skills (r= 0.373-0.621, P < 0.001), analytical skills (r= 0.417-0.676, P < 0.001), ethics (r= 0.560, P < 0.001), oral skills (r= 0.428, P < 0.001), writing skills (r= 0.382, P < 0.001), confidence (r= 0.234-0.417, P < 0.001), teamwork (r= 0.520, P < 0.001) and motivation (r= 0.326, P < 0.001). CURE in a Nutrition course may have a significant impact on students' self-confidence, motivation, analytical, and interpersonal skills all of which have positive effects on their academic experience.

Keywords: course based undergraduate experience (cure), nutrition science course, pre- and post- survey, academic research, interpersonal skills

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DIGITAL HUMANITIES AND VIRTUAL REALITY: THEORIES AND BEST PRACTICES FOR ART HISTORY

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The potential benefits of integrating immersive realities into traditional humanities curricula have been touted over the last two decades, but budgetary and technical constraints of implementation have limited its adoption. However, recent advances in technology, along with a lower-price point for hardware and more friendly user interfaces has opened a path for 2021 to see the widescale adoption of the technology. In fact, by 2021, 60% of U.S.-based higher education institutions will intentionally use VR to create an enhanced simulation and learning environment (Resnick & Morgan, 2017). In the age of limitations, including class sizes, travel and study abroad, and even face-to-face instruction, the pedagogical need to adopt immersive realities has never been more acutely felt. In order to determine the expectations and results of integrating virtual reality into coursework, students and faculty were surveyed and the results compared to aggregate institutional data. The Fall 2020 study began by surveying students in the Art and Design division in order to ascertain the prevalence and familiarity of immersive reality technologies, as well as the perceived benefit of integration into curriculum. The Spring 2021 surveys collected data on student experience relating to virtual reality assignments integrated into coursework for both face-to-face and online learners. The results provide a model for other institutions to reinforce outcomes through selective use of the technology.

Keywords: virtual reality, education, art history

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EXPLORING THE TREND OF PLANT-BASED MEAT IN TAIWAN

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Under the changes of global environment, climate and society, global agriculture sector started to suffer from the environmental impact. Following the generation, people pay attention to the environment, health problems and social issues, they hope they can reach the goal of sustainable environment through increase green food consumption and reduce conventional meat consumption. The year 2020 is the first year of plant-based meat in Taiwan., it also become one of the trends in food and agriculture industry. This new type of green diet is now all the rage in European countries and the United States. Plant-based Meat not only means eating plants, it also means people care about natural environment, animal welfare and fashionable style. After Bill Gates invest in Beyond Meat, plant-based meat started to be famous around the world, Taiwan also followed up on this trend. Taiwan introduced plant-based meat since two years ago, and the product of plant-based meat are sold and used in a variety of sales channels, such as fast food restaurant, coffee shop, hypermarket and supermarket. There are some plant-based meat companies which started to follow up, they have a strong capacity for innovation, but most local brands do not know how to market and promote. In Taiwan, plant-based meat is a new market. There is no academic research in this market. So, in this research, the researcher wants to explore the potential opportunities of plant-based meat in Taiwan and to see the opportunity for this potential market through literature review and document analysis. The outcome of the research will provide the data for the related market references.

Keywords: green consumption, plant-based meat, vegan trend

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EXPLORING DIGITAL TRANSFORMATION OF TAIPEI CITY IN MUNICIPAL SERVICES: A CASE STUDY IN TAIPEI PASS

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With the rapid advances in technologies, the governments around the world actively in introducing and promoting digitalization of public services and developing smart cities in the recent decades. Taipei City Government has also taken a progressive step on digitalization of public services and launched Taipei PASS, a digitalized integration of municipal services established by Taipei City Government in 2020. Integrating government services can provide convenience and efficiency to citizens and facilitate the communication between citizens and the government. In addition, high dependency on smartphones and internet penetration has revealed a great opportunity to digitalize municipal services. However, some of the citizens have innovation rejection toward digitalization. This research proposal aims to explore the digital transformation of Taipei City on municipal services, using the case of Taipei PASS, as well as reasons of citizens' refusal of use on digital municipal services. Drawing on the theoretical framework developed by Technology Acceptance Model and Diffusion of Innovation Theory, framing the factors that shaped users' attitudes and behavioral intentions to the use of digital municipal services, as convergent validation of understanding the current situations and limitations on promoting municipal services digitalization in Taiwan, so as to provide strategies for promotion of digital municipal services.

Keywords: digital municipal services, citizens' attitude, Taipei PASS, digital transformation in Taiwan

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ENHANCEMENT OF CORE COMPETENCIES OF UNIVERSITY STUDENTS THROUGH CREATIVE LEARNING COMMUNITY PROGRAMS IN RESIDENTIAL COLLEGE EDUCATION ENVIRONMENT

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With the advent of the Fourth Industrial Revolution, the paradigm of higher education has shifted from learning for the simple acquisition of knowledge to the strengthening of competencies. Yonsei University has developed a program called the Creative Platform to strengthen the basic core competencies of new students, and has been running it as a one-year activity since 2017. The Creative Platform is a creative convergence educational program that aims to cultivate talents who will lead the future society. Team project that enables creativity, problem-solving skills, and collaboration skills in an RC educational environment where people from various majors and backgrounds live and learn together. Every year, 250 to 300 students participate, and even in non-face-to-face situations due to the 2020 Corona Pandemic, many students participated. We conducted a Core Competencies Test (CCT) for these students before and after participation in the program. As a result, it was found that students' competencies improved in all competencies, including critical thinking/problem solving ability, creative thinking, communication, cooperation, and learning, which was higher than the average value of all university students in Korea. In this presentation, the outline of the creative platform program, the operation method, and the results of the Core Competencies Test (CCT) of students will be discussed.

Keywords: creative platform, core competencies test, critical thinking, creative thinking, communication, cooperation, learning

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"EXCUSE MY MISUNDERSTANDING": USING INTERCULTUREL APPROACH TO TEACH ENGLISH AS A FOREIGN LANGUAGE IN FRANCE

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In France, the intercultural approach has been largely associated with teaching French as a Foreign language due to the multicultural and multilingual nature of the classes. There is very little research on the use of such an approach in teaching English as a Foreign language. This is due to the fact that the majority, if not all students are of the same culture and speak the same language (French). That makes the classes monolingual and the only intercultural experience, in that case, is the English program presented by the teacher who in most cases is also French. This paper examines the use of the intercultural approach in teaching EFL to French learners (middle school pupils/university students) by a foreign teacher and the use of social representations as a strategy to develop classroom participation in verbal communication. It discusses theoretical understandings of the selected learning approach and how it was used in practice drawing from both the teacher and learners' experiences and from the data collected through participatory observations.

Keywords: intercultural approach, language teaching, social representations, English program, French learners

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THE EFFECT OF OPTICAL ILLUSION 3D CROSSWALK ON VISION

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Stepping stones, which is the ancient crosswalk, the main function of it is to warn drivers to slow down. However, the main function is no longer existed in today's crosswalk. Due to the reason mentioned above, the purpose of the study is to combine advantages with two different crosswalk, two-dimensional (2D) crosswalk (safety for pedestrian) and stepping stones (warning function for driver). Therefore, the study redrew six versions of three-dimensional (3D) optical illusion crosswalk samples, referring to the regulation from Ministry of Transportation and Communications, R.O.C. and 3 different types of shadow caused by one-point perspective (front-shadow, back-shadow and non-shadow) and 3 different visual 3D thickness (45cm, 50cm and 60cm). In the questionnaire, the study including 30 respondents and asking respondents' feedback of 3D samples' degree with five-level Likert Scale. The results showed that "3D visual thickness 50cm crosswalk with front-shadow" had the best sensation in six versions 3D samples.

Keywords: innovation, design, optical illusion, perspective

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EXPLORING CRM INVOLVED IN DIGITAL ERA FOR GENERATION X

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With the integration of the Internet and consumption, Internet technology reconfigured the traditional consumption patterns and has prompted the emergence of new Customer Relationship Management. Previous research has primarily indicated the trend of the retail industry is from the single, multi, cross to omnichannel. Generation X people who born and grown in the year without the internet faced the information age when they graduated from school. This study aims to explore the evolution of Customer Relationship Management and how generation X involves in the digital era. We used the data collected by observation method and secondary business strategy report from the case of the eslite book store to decompose their omnichannel Customer Relationship Management. The results showed that generation X is used to traditional media, but also engages in social media and the lack of Customer Relationship Management in omnichannel. To conclude, this study dedicated X-Generation consumption to business strategy in the digital transformation.

Keywords: crm, retail, generationx

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ANALYSIS OF CROATIAN BOOK BLOG AUDIENCE'S HABITS AND BEHAVIOR USING MIXED MEHODOLOGY

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Blogs are a widespread and popular internet form of very diverse content that provides the opportunity to interact, exchange opinions and experiences of their users. The phenomenon of growing popularity of Book blogs on social networks and the Internet is the subject of recent media research in terms of the extent of such interaction through liking and commenting and the ways in which this interaction can be measured and observed. Blogs are problematized in several ways, some research looks at different forms of interactions of administrators of such blogs, some are related to their role and marketing forms of popularization of literature. This paper explores the behavior, specifics and reaction of the audience to posts published via the Facebook page of the most widely read Croatian book blog 'Čitaj knjigu'. For this purpose, a mixed methodology approach were used. Data were procssed by manual content analysis and netnography method. The results showed that the audeince regularly follow the blog page, that the most common interaction was with photos and statuses, that posts which contain book's quotes drives most reaction; tthat the contents lead them to reflection or further research; that the dynamics and scope of posts' depend on the characteristics of the site, and that the role of the administrator on a book blog is very large. Given the scarcity of research on book blog audiences, the results obtained can serve to gain a deeper insight into the user habits and behavior of the media audience and a quality basis for further research.

Keywords: blog, Facebook, media audience behavior, netnography

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CORRELATION ANALYSIS OF KRAV MAGA ATHLETES' SOCIODEMOGRAPHIC CHARACTERISTICS AND THEIR LEADERSHIP COMPETENCIES

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The Krav Maga system tactics develop character traits, skills and values that such as integrity, ethics, humility, peacefulness, non-violence, self-awareness, discipline, respect, responsibility, active listening and ability to function in stressful situations. The same traits are associated with transformational leadership, and can be a useful tool and model for effective corporate governance and personal growth. This paper explores the relationship between some sociodemographic characteristics of Krav Maga athletes and competencies that are identified as leadership competencies, as assessed by respondents in relation to their personal and work environment. Survey was conducted during March 2021 on deliberate sample of active athletes of the Krav Maga self-defence system from a total of 22 countries (N = 98, F = 36). The quantitative methodological approach was used. For this paper purposes, data were processed by descriptive statistics procedures and appropriate non-parametric methods (hi-square test - χ^2 and Spearman's Rho). The SPSS Statistics version 27 package was used. Correlation analysis was performed between group variables (self-awareness, self-regulation and environmental awareness) and set of independent variables composed of gender, communication skills, years of working experience and years of Krav Maga training. Obtained results showed that the group variables were highly correlated, positive and statistically significant at the level of 1% ($p < 0.01$). It seems that the participants' competence of Krav Maga and leadership qualities is achieved based on Krav Maga training, while gender and non-formal and cultural learning potentially acquired through years of work experience in this sample are not related to the development of leadership competencies.

Keywords: communication skills, Krav Maga system, self-awareness, self-regulation, transformational leadership

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DESIGN THINKING AS AN EDUCATIONAL INNOVATION WAY: A CASE STUDY OF DESIGN FOR CHANGE TAIWAN (DFC TAIWAN)

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A skills gap from theoretical knowledge to practical application is always a critical issue in Taiwan's education field. The launch of 12- year Basic Education Curriculum and the emergence of the educational innovation industry arouse the awareness of project-based competency-oriented curriculum design. Introducing design thinking into the educational field has received significant attention in recent years owing to the fact that the characteristics of design thinking track with a similar vision of the" core competency" listed in the 12- year Basic Education Curriculum, including emphasizing on exploring and doing, interdisciplinary integration, and the real-world scenario. This research takes the "Campus Ambassador Program" held by Design for Change Taiwan (DFC Taiwan), an educational innovation organization, as a case study. The method of semi-constructed in-depth interview is selected to gather the information from the student teachers of the program's participants as well as the staffs of DFC Taiwan who are responsible for this program, in order to know the effectiveness of the student teachers' design thinking education program.

Keywords: 12- year basic education curriculum, educational innovation, design thinking, student teacher education program

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EVALUATION AND QUALITY ASSURANCE FOR HIGHER EDUCATION IN MOROCCO: THE ANEAQ AS THE MAIN ACTOR

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The Moroccan higher education has undergone several attempts of reform. the latest being the adoption of a framework law based on the 2015-2030 strategic vision of the Higher Education Council in which evaluation is placed at the center of the reform. Thus, competition and competitiveness in the field of higher education at the national and international levels have prompted Moroccan universities to integrate evaluation into their continuous improvement process through strategic projects, cooperative or even voluntary initiatives, either partially or for the whole university, covering all domains or focusing on specific ones. The National Agency for Evaluation and Quality Assurance of Higher Education and Scientific Research (ANEAQ) is an autonomous instance in charge of evaluating the higher education system to guarantee its quality. Its field of action covers all national institutions and training programs. Despite this enormous scope of action and the difficulties encountered, it has been able to promote a quality culture and harmonize the practice of institutional evaluation through the implementation of the national reference system covering all the institution's activities. This article highlights the importance of evaluation and quality assurance in the Moroccan higher education sector, explores the scope of action and the role played by ANEAQ, and provides some ways for improving the evaluation process.

Keywords: higher education, quality assurance, evaluation, ANEAQ

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HUMAN RIGHTS DISCOURSE: HOW PHILOSOPHY CAN HELP TRANSCEND THE EAST / WEST DIVIDE

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I utilize the work of Philosopher Thomas Kasulis, in a manner he does not: to demonstrate how to make progress in cross-cultural human rights discourse and persuasion between east and west. He argues that basic patterns of culture replicate themselves in every domain - metaphysics, epistemology, axiology, the very grounds of persuasive discourse itself – and thus, these are formulated as cultural products of specific orientations to the world. This pattern reveals "how people tend to think about reality and persuade others of their position."[1] He delineates two such orientations – intimacy and integrity – arguing that Eastern and Western cultures have the elements of each, with one being dominant and one recessive in each. Put another way, each culture unconsciously tends to foreground one orientation over the other – to make one more dominant or authoritative. In forming a common basic understanding about relations and analysis, the dominant orientation becomes the dominant discourse of persuasion.[3] After a very brief introduction to the East west divide regarding human rights discourse, I explain Kasulis Intimacy & Integrity model and then apply its insight regarding cultural grounds of persuasion to demonstrate concrete ways to translate western cultural human rights values into language resonant in eastern frameworks – translating the language of integrity into the language of intimacy. This is applied to concrete current issues. [1] Kasulis, Intimacy or Integrity: Philosophy and Cultural Difference, 133. [3] Kausuls, 135.

Keywords: human rights, thomas kasulis, philosophy

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INVESTIGATION OF TEACHERS' RISK TAKING AND LIFE SATISFACTION LEVELS DURING THE COVID-19 PANDEMIC

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This study aims to determine the relationship between the life satisfaction and risk-taking levels of teachers during the COVID-19 pandemic, their opinions on some demographic variables and whether there is a difference in these opinions. The research is a quantitative study carried out in relational survey model. The sample consists of 293 participants. The data of the research were analysed using the Jamovi 1.6.12 statistical software program. It was determined that the participants' mean score for the risk-taking dimension was high, and the mean score for the life satisfaction scale was found to be in the moderate level range. There was no significant difference in the branch variable in the scores of the participants regarding the risk-taking dimension while there was a significant difference in terms of gender and doing sport variables. According to the life satisfaction scale, there was no significant difference in terms of gender and branch variables, on the other hand; there was a significant difference in terms of doing sport variables. It was found that there was a significant relationship between the participants' risk-taking factor and their life satisfaction levels, and that the risk-taking dimension was a significant predictor of the participants' life satisfaction. Conducting this research based on a current topic makes it significant. It is anticipated that the results of this research will contribute significantly to researchers in the field to pave the way for conducting new studies.

Keywords: COVID-19, teacher, risk taking, life satisfaction

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THE DELV-ST: IS IT REALLY CULTURALLY AND LINGUISTICALLY APPROPRIATE FOR ALL CHILDREN?

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The Diagnostic Evaluation of Language Variation-Screening Test (DELV-ST; Seymour et al., 2003) is designed for speech-language pathologists to accurately differentiate language variation due to a non-mainstream dialect from language variation due to a language disorder. In the current study, we asked how well the DELV-ST achieves this goal. The data for the project came from 589 kindergartners from rural Louisiana; 230 were African American and spoke African American English (AAE) and 351 were non-African American and spoke Southern White English (SWE). The primary analysis was correlational as we sought to determine how well the dialect subtest correlated with the language risk subtest. Results indicated that the two subtests were significantly correlated to each other for the dialects combined ($r= .41, p< .001$) and separated (AAE:$r= .47, p< .001$) (SWE:$r= .23, p< .001$). Interestingly, the risk subtest contains grammar items and non-word repetition items. When these items were examined in isolation, the children's dialect scores remained correlated to their grammar scores ($r= .52, p< .001$) but not their nonword repetition scores ($r= .11, p= .009$). These finding indicate that the DELV-ST does not differentiate between the two types of variation as advertised. Nevertheless, compared to the grammar items, the nonword repetition items on the DELV-ST do a better job of measuring the children's language abilities independent of their dialect scores. Future studies should further explore nonword repetition as a culturally and linguistically neutral measure of children's language abilities.

Keywords: speech-language, dialect, delv

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ADDRESSING MISMATCH BETWEEN TVET PROGRAMS AND THE SKILL NEEDS IN THE FINANCE AND BANKING SECTOR – A CASE STUDY FROM QATAR

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Linkage between Qatar's labor market and post-secondary education are not strong enough and often give rise to neglected or duplicated human capital development. Therefore, most development efforts of human capital occur in isolation involving outmoded programs with many faculties complacent and unaware of new technologies and developments in relevant labor market sectors. Analysis of secondary data from government departments and international studies and a survey on "Improving and enriching the Human Capital of the State of Qatar through Identification and Development of 21st Century Skills", explored perceptions of both employers and TVET program leaders toward the skills needed for economic and social developments in a changing world by meeting human capital needs through 21st century skills. A total of 85 managers and professionals completed the survey, together with 35 TVET program leaders located in one university and five government TVET institutions (the survey was adapted to fit the context of TVET institutions). Thirty-two industry managers and professionals were from Hydrocarbon and Energy, 26 from Built Environment and 27 from Banking & Finance sectors. Furthermore, 32 semi-structured interviews were conducted. Descriptive statistics using T-test and effect size for comparison, results showed a major mismatch between the perceptions of TVET program leaders and business & finance sector' managers and professionals in many aspects of the required 21st century skills mainly in the social skills and some specific technological skills. The study indicates a weak link exists between the employers and TVET institutions. Minimizing skills' mismatch can be achieved by placing greater emphasis on reforming Qatar TVET institutions curricula, which will facilitate faster transitions into the workplace.

Keywords: TVET, Qatar, finance and banking, skill gap, 21st century skills

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SERVING CLIENTS IN CENTRAL APPALACHIA: SELF-EFFICACY OF MENTAL HEALTH COUNSELORS WITH ASSESSMENT OF AND INTERVENTIONFOR SUBSTANCE USE

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Two hypotheses, examine levels of self-efficacy in mental health counselors for providing substance use services and whether external variables impacted reported self-efficacy are presented. In Central Appalachia 65 licensed mental health counselors completed the Substance Use Self-Efficacy Scale (SATSES) and answered demographic questions. Hypothesis 1 stated mental health counselors in Central Appalachia would self-report low levels of perceived self-efficacy in providing services to clients with substance use issues. This hypothesis was not supported by the research findings. Hypothesis 2 specified level of education, credentials, number of graduate substance abuse classes completed, number of continuing education hours on substance abuse, length of time in field of counseling, and amount of time working with substance using individuals as potential predictors for counselors' reported levels of self-efficacy. Hypothesis 2 was supported. Ancestral roots of the Appalachian culture as relate to the current substance use epidemic are exposed. Challenges in andragogy, service systems, and for providing effective interventions for the Appalachian substance use epidemic are discussed.

Keywords: appalachia, appalachian culture, substance use, counseling, mental health, self-efficacy, college curricula

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RELATIONSHIP BETWEEN THE LEARNING ORGANIZATION AND ORGANIZATIONAL AGILITY

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The purpose of this research is to analyze the relationship between learning organization and organizational agility, how being a learning organization affects organizations in achieving organizational agility and determining how important learning is still a dynamic for unlimited competition by identifying the relationship between them. The data have been obtained from authorized employees of a corporate firm, which has been providing stores and franchise services in 47 different countries for 33 years in the textile sector with retail merchandising service and has a strong competitive power in its sector. Data were collected by survey method between 01-03 March 2021. Learning organization questionnaire by the authors of Marsick and Watkins (2003) and organizational agility questionnaire of the authors of Sharifi and Zhang (1999) were applied. The number of 394 surveys was reached between the relevant dates through the online survey form. Within the scope of the research, the relationship between the seven sub-dimensions in the learning organization scale and the four sub-dimensions in the organizational agility scale was examined. Research hypotheses were tested with Pearson correlation analysis and a significant relationship was found between learning organizational structure and organizational agility.

Keywords: learning organization, organizational agility, management

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CITIZEN SCIENCE: AN PROMISING SPHERE WITHIN THE GLOBE OF SOCIAL SCIENCES

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As we have been going through difficult times the importance of surviving has become more apparent. At first glance, ensuring ecological balance and sustainability is crucial here. Taking a more holistic view though, it becomes clear that science is the key to (re)solve issues but all branches should be referred to at this point. Social sciences are as valuable as the aforementioned and they have their own place in understanding the World. Thereupon, all forms of science are equally necessary to establish meaningful links with the Earth, human beings and beyond i.e., the Universe. This thinking is considered more valid during the 'post-coronial' period we are currently in while alternative means and meanings are being sought Citizen science can be handled as a growing dimension within the above concepts of science; however, it is witnessed that the projects designed, initiated, and completed have hitherto been connected to concepts such as biodiversity, ecosystems and pollution, which make it seem a part of natural sciences only. On the contrary, citizen science can act as a component of modern science and thusly integrating the methods, models, and findings pertaining to citizen science into conventional paradigms in numerous branches of scientific endeavor is worth delving into. To that end, this paper aims to deal with citizen science as a fundamental constituent of science(s) via analyzing the term with the territories of its practicum and the possibility of creating and maintaining purposeful relationships with social sciences. Besides, it intends to shed light on the capability of higher education institutions as significant bases of relevant practices where thinking and operations are monitored and enhanced with the citizens in a collaborative fashion through interdisciplinary projects concentrating upon art, humanities, and culture for the good of humankind alongside other living beings.

Keywords: citizen science, social sciences, university

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INTERNATIONAL STUDENTS MOBILITY - TEN YEARS OF EXPERIENCE AT THE FACULTY OF MEDICINE OF THE UNIVERSITY OF COIMBRA (2009-2019)

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Since 1987 the Faculty of Medicine of the University of Coimbra (FMUC) has been engaged in mobility programs, making efforts to encourage and support the internationalization of its students. The mobility programs are designed to foster quality and to reinforce the dimension of Higher Education, to encourage transnational cooperation between Universities to improve transparency and the academic recognition of studies and qualifications. The objective of this paper is to present a report on the evolution of mobility of the FMUC undergraduate students in the period between 2009 and 2019. An observational descriptive report was carried out. During this last decade, the FMUC has dealt with mobility applications from 1,500 incoming and 1,350 outgoing students to attend both classes and clinical traineeships as part of their Master's Degrees in Medicine. In the academic year 2015-2016 there was an increase in the number of applications, coinciding with the introduction of clinical internships in hospitals. The top countries where the FMUC sent students (538); and from where it received students (978) were, Italy, Spain and Brazil. In Portugal, the FMUC is one of the main medical schools with the largest number of students attending mobility programs, which has contributed to fostering the internationalization of undergraduate medical students' training.

Keywords: higher education internationalization, students mobility, mobility programs, incoming and outgoing students, medicine

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