









Abstract of The Proceedings

Accelerating Advancement in Green Environmental Sustainability: Best Practice for New Normal Era

LPPM UNIVERSITAS JAMBI 2020

BOOK OF PROCEEDING'S ABSTRACT OF THE $3^{\rm rd}$ GREEN DEVELOPMENT INTERNATIONAL CONFERENCES, 2020

Theme: Accelerating Advencementin Green Environmental Sustainability: Best Practice For New Normal Era

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PROCEEDING'S ABSTRACT

THE 3rd GREEN DEVELOPMENT INTERNASIONAL CONFERENCE

Theme:

Accelerating Advencementin Green Environmental Sustainability: Best Practice For New Normal Era



LEMBAGA PENELITIAN DAN PENGABDIAN MASYARAKAT UNIVERSITAS JAMBI

2020

WELCOME MESSAGE

Assaamualaikum Wr. Wb

Good Morning Ladies and Gentlemen

The Honorable Rector of Universitas Jambi, Prof. Drs. H. Sutrisno, MSc, PhD

The Honorable Vice Rectors for Academic, Administration and Finance, Students and Alumni Affairs, and Planning, Cooperation, and Information System.

The Honorable Invited Speakers of the 3rd GDIC, 2020 Prof Albert, DrAmy, and Dr, John Willison

Ladies and Gentlemen,

On behalf of the committee, I would like to welcome all participants of Green Development International Conference, 2020. This year conference is the third GDIC hosted by Institute for Research and Community Service (LPPM) Universitas Jambi.

Ladies and Gentlemen, In response to the covid 19 outbreak, the committe choose the theme about "Accelerating advancement in green environmental sustainability: best practice for new normal eras." And Due to this pandemic, the conference is delivered by using online mode through zoom meeting to make sure that all participants are safe and secure. This is not a normal way of doing the seminar, but yes, now we are living in the new normal era that force us to quickly adapt and react in the right ways.

Ladies and gentlemen, There are more than 200 participants joined this conference and they are from various background such as lecturers, researchers, practitioners, educators, and policy makers. They are from 4 representatives countries such as Hungary, Netherland, USA, and Indonesia as the hosting countries.

There are are three invited speakers participating in this conference,

On this ocassion, I would like to welcome to the invited speakers;

- 1. Dr. Amy Duchelle: Team Leader Climate Change, Energy Low-Carbon, CIFOR
- 2. Prof. Dr. Albert: Professor in Quality Improvement in Medical Education, Maastricht University
- 3. Dr. John Willison: Senior Lecturer in the Discipline of Higher Education, School of Education, The University of Adelaide

Ladies and gentlemen,

This International Conference is carried out once in two years hosted by the Research and Community Service Institute (LPPM) Jambi University. This Conference is aimed to provide insightful information in relation to the development a number of innovations in science and technology that are environmentally friendly covering the fields of technology, environment, agriculture, energy, health, Law, education and humanities.

Finaly,

I would like to thanks to the committee of this conference for their hardwork to make this event possible. Thanks to all participants for their contribution to this conference. The sponsors who support the conference, And Special thanks to the top management of Universitas Jambi, Our Rectors and the staff who are committed to bring Universitas Jambi as the centre of Excellence which at the end to make UNJA as as the world class Entrepreneurship university.

I wish you all enjoyable sessions in the conference.

Wassalamualaikum wr wb, and Thank you

Chairman of Committee

Urip Sulistiyo, S.Pd., M.Ed., P.hD.

RECTOR'S WELCOME ADDRESS

Assalamualaikum Wr.Wb.

Good orning Ladies and Gentlemen,

As the rector of Universitas Jambi, I welcome you warmly to Jambi University to participate in the 3rd Green Development International Conference (GDIC 2020). With over 30,000 students and 1,600 employees in research, teaching and administration, Jambi University, which was founded in 1963, is currently the largest university in Jambi.

Dear audience,

As the biggest university in Jambi province, Jambi University has played an important role as a key-player in both human and natural resources development in Jambi province. We have successfully developed cooperation in all sectors of development in Jambi province. We have contributed in the variety of activities such as research, community service, consultancies, training services and providing some experts to speed the development of Jambi Province. Today, Jambi province consistently seeks innovative methods to take part more actively on an inter-discipline study for sharing research relating to green development in all area of knowledge, science and expertise.

This international conference is held for the purpose of introducing and developing a number of innovations in science and technology that are environmentally friendly covering the fields of technology, environment, agriculture, energy, health, education that are applied in various livelihoods.

Ladies and gentlemen,

In this opportunity, I would like to express that we are very fortunate to have you at GDIC 2020. Particularly, this conference is organised by the Research and Community Service Center or LPPM Jambi University.

I would like to welcome and thank all the keynote speakers:

- 1. Dr. Amy Duchelle: Team Leader Climate Change, Energy Low-Carbon, CIFOR
- 2. Prof. Dr. Albert: Professor in Quality Improvement in Medical Education, Maastricht University
- 3. Dr. John Willison: Senior Lecturer in the Discipline of Higher Education, School of Education, The University of Adelaide

Hope that we could extend our collaboration in the near future.

Lastly, Thank you for the Conference Committee for your hard work to make this all happen, I also would like to thank all of the conference participants for their contributions which are the foundation of this conference. I wish you all enjoyable sessions in the conference.

By Saying Bismillahirohmannirrohim,

The Third Green Development International Conference, 2020, is officially opened.

Wassalamuaaikum wr.wb

Thank you

Rector of University of Jambi

Prof. Drs. H. Sutrisno, M.Sc., P.hD.

THE HEAD of LPPM'S WELCOME ADDRESS

Assaamualaikum Wr. Wb

Good Morning Ladies and Gentlemen

The Honorable Rector of Universitas Jambi, Prof. Drs. H. Sutrisno, MSc

The Honorable Vice Rectors for Academic, Administration and Finance, Students and Alumni Affairs, and Planning, Cooperation, and Information System.

The Honorable Invited Speakers of the 3rd GDIC, 2020 Prof Albert, DrAmy, and Dr, John Willison

Ladien and Gentlemen,

On behalf of the committee, I would like to welcome all participants of Green Development International Conference, 2020, The theme that we chose for this year conference is "Accelerating advancement in green environmental sustainability: best practice for new normal eras." This theme is chosen in response to the recent situation which happens in almost all part of the world that we know as Covid 19 outbreak. As academicians and researchers we are called to find the right strategies to adapt and react against this world pandemic.

Ladies and Gentlemen,

It is great time to me to speak to you to officially wellcome all the participants from accross the world. More than 200 participants have registered and joined this seminar and there are representatives of 4 countries participating in this 2020 GDIC, namely Indonesia, Netherlands, Hungary, and USA.

Ladies and gentlemen,

This International Conference is carried out once in two years hosted by the Research and Community Service Institute (LPPM) Jambi University. This Conference is aimed to provide insightful information in relation to the development a number of innovations in science and technology that are environmentally friendly covering the fields of technology, environment, agriculture, energy, health, Law, education and humanities.

Ladies and Gentlemen,

In detail, the purposes of holding this international conference are:

- 1. To unite ideas and thoughts that will be the basis for a plan for solutions to the advancement of environmentally friendly science and technology.
- 2. To enble lecturers, presenters, researchers, participants and all parties involved tomeet and exchange their ideas.

- 3. To disseminate the results of research by researchers and lecturers from various regions and countries on how to implement green development to support and respond to the recent situations of the spread of Covid 19 pandemic.
- 4. To develop the capacity of researchers, the academic community and the in mastering innovation to implement sustainable green development.
- 5. To increase the capacity of researchers and academicians in writing and publishing research articles in accredited international and national journals indexed in leading external databases such as Scopus and Web of Science

Finaly,

I would like to thanks to the committee of this conference for their hardwork to make this event possible. My big gratitude also goes to all participants for their contribution to this conference. The sponsors who support the conference from the beginning to the end of this event. And Special thanks to the top management of Universitas Jambi, Our Rectors and the staff that always support us in our efforts to make UNJA as the world class Entrepreneurship university.

Once again, to the participants, welcome and enjoy the seminar. Thank you

The Head of LPPM Universitas Jambi

Dr. Ade Octavia, SE, MM.

GENERAL INFORMATION

Venue and Contact Details

- 1. Hotel Swiss-Bel Hotel Jambi Jl. Sumantri Brojonegoro No.1, Solok Sipin Kec. Telanaipura, Kota Jambi, Jambi 36124
- 2. Research and Community Service Institute (LPPM) Universitas Jambi Kampus Pinang Masak jalan Raya Jambi Ma. Bulian, KM. 15, Mendalo Indah Kode pos 36361, Telepon (0741) 582314
- 3. Zoom Meeting

Registration

Registration takes place at Swiss-Bel Hotel Jambi. All delegates need to register before they may access the congress sessions and the exhibits. Dlegates with outstanding payments must settle their account at the Finance Desk in order to gain access to the congress.

Registration Date and Time:

Friday, October 2nd 2020 07.30 – 08.45 WIB

Opening Ceremony 08.45 – 10.30 WIB

Catering - Coffee Break, Lunch and Afternoon Tea

All congress catering takes place at Swiss-Bel Hotel. Coffee break, lunch and tea and coffee are available for all registered delegates and exhibitors.

Certificate of Attendance

A certificate of attendance will be issued right after the day of the conference, on request to delegates with fully paid up registrations who attended the congress.

Currency

The Rupiah (symbol 'Rp': code 'IDR') is the Indonesian currency.

Emergency Contact Details

- 1. Hospital: Siloam Hospital Jambi, Jl. Soekarno Hatta, Paal Merah, Jambi Selatan, Kota Jambi, Jambi 36139. Phone no. (0741) 5919000
- 2. Police Station: Polsek Jambi Selatan, Jl. Soekarno Hatta, Pasir Putih, Jambi Selatan, Kota Jambi, Jambi 36126. Phone no. (0741) 572716
- 3. Firefighter: Dinas Pemadam Kebakaran Kota Jambi, Jl. Cokroaminoto Suka Karya Kota Baru Kota Jambi, Jambi 36124. Phone no. (0741) 41171

Mobile Phones and Electronic Equipment

Please consider presenters and other delegates by ensuring mobile phones are set to SILENT or TURNED OFF during all congress sessions.

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KEYNOTE SPEAKERS



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Quality improvement in education as a measure to support environmental sustainability

Albert Scherpbier et al

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This paper is to describe the relation between education and environmental based sustainability. Issue about educational feasibility, students' ability to adap to the world with rapid change, teachers' readiness for changing society, and the choice of education effectiveness are the issue that are going to discuss further in this paper. The topics about Learning environment, Work/live balance, Future Look for environmental sustainability are also explored in this paper. The conclusion tobe made are: In a fast changing world we have to check much more if we are going in the right direction. Secondly, it is wise to invite other people to look at us, sometimes we don't see it clear from our own pespectives. Our organizations and budget should become flexible to be able to adapt and think about all the aspects of sustainability.

Keywords: Education, Environmental Sustainability



Research skill development in all courses: Towards innovative and environmentally-aware graduates

Subtheme: Innovation and change in Higher Education

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ABSTRACT

When students graduate after having experienced explicit development of the skills associated with research in their courses, they have enhanced capacity to innovate in their employment contexts. Such research-minded innovation is best developed course by course, learning task by learning task, assignment by assignment in content-rich and diverse contexts. Moreover, environmental sustainability is highly interdisciplinary and needs a range of perspectives and disciplinary ways of thinking that can effectively connect together research thinking, both for individual students and across collaborative teams.

However, terminology around 'research' frequently does not fit with various disciplinary ways of thinking, speaking and acting. Over the past ten years, the Research Skill Development (RSD) framework, designed to develop research thinking, has been frequently adapted and translated for a variety of university contexts, including: the Work Skill Development framework for work-integrated learning; the Optimising Problem Solving pentagon for Engineering and Mathematics contexts: the Clinical Reflection Skill framework for clinical contexts; the Critical Reflection pentagon for Education contexts; and the song Research Mountain for Early Childhood contexts. The name given to the family of models that share the key parameters of the RSD is the Models of Engaged Learning and Teaching (MELT). By the use of appropriately fit-for-context versions of the MELT, there is the realistic possibility that disciplinary terminology and thinking is able to better connect, for students, to the research thinking needed in interdisciplinary teams that innovatively engage with environmental sustainability issues during their studies and when they graduate.



Coffee Of Agroindustry Product For Innovation Perspective

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ABSTRACT

Coffee, roasted coffee beans, are among the most widely consumed beverages in the world. Jambi Province is one of the coffee producers in Indonesia, namely the Arabica, Robusta, and Liberica varieties. The study of coffee is no longer just about planting but has rapidly developed into the fields of agriculture and biotechnology, economy, creative economy and tourism, and health. Many studies have reported that coffee consumption is associated with the lower risks of type 2 diabetes mellitus, Parkinson's disease, liver disease, and mortality. However, further research is still needed to recommend coffee consumption for the prevention and treatment of these diseases. Studies on coffee have been carried out including roasting, separation, and identification of chemical compounds (FTIR, UV-Vis, XRD, SEM, DSC, LC-MS), and interaction of chemical compounds to explore the potential of coffee in the health sector. The results showed that the ethanol extract of green coffee beans and roasted coffee contained trigonelline, chlorogenic acid which is thought to have anti-aging and anti-bacterial activity. However, further research is needed to confirm the antiaging and antibiotic activity of Arabica, Robusta, and Liberica coffee.

Keyword: Jambi coffee, antiaging, antibiotic



The Effectiveness Of Fermented Palm Kernel Meal (FPKM) Containing Probiotic In The Diets In Reducing Fecal Ammonia Emission And Performances Of Poultry.

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ABSTRACT

Ammonia (NH₃) is one of the most dangerous pollutants in confined poultry farm. It affects animal production and causes environmental issues. Therefore, ammonia is a serious issue that should draw attention. The objective this experiment was to evaluate the effectiveness of using FPKM containing probiotic in the diets in reducing fecal ammonia and performance of poultry. Nutrient content of the PKM consist of 18.42% crude protein, 29.31% crude fiber, 16.88% crude lipid, 1.06% Ca, 0.57% P, It could be potential to be used for poultry diet. However, the using of palm kernel meal (PKM) is still limited in poultry diets, due to its high content of fiber and poultry do not have the enzymes to break down fibers and mannan in its digestive tract. So, before using PKM in poultry diets, it is necessary to improve the quality of PKM through biotechnological fermentation. So, it would be able to use in poultry diets.. Probiotic bacteria such as Streptococcus thermophilus, Bacillus Cereus, Lactobacillus Bulgaricus could be used for fermentation of palm kernel meal. By using those probiotic bacteria, fermentation of PKM during 48 hours reduced the crude fiber from 29.31% to 15.15% and produced 16.40% crude protein (CP), fat 11.38%, 0.77 Ca and 0.68% P. Studies on FPKM containing probiotic in the diets have been carried out including in Broiler, Native Chicken, Duck and Quail to evaluate for reducing of fecal ammonia and their performance. In conclusion, fermented palm kernel meal (FKM) containing probiotic of Streptococcus Thermophilus, Bacillus cereus and Lactobacillus bulgaricus at level of up to 20% in he diet of boiler, 30% in the diet of native chicken, 40% in the diet of local duck, 25% in the diet of quail diet were no negative effect on the peformances and were very effective in reducing of their fecal ammonia emission.

Keyword: Probiotik, Prebiotic, Fermented Palm Kernel Meal (FPKM), Ammonia, Poultry



Environment-Based Learning For Character Education: Case Study In Jambi

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ABSTRACT

Character education is currently becoming a burning issue in Indonesia, and more discussed by the educational practitioners in seminars and conferences. One of the most discussion topics is how to integrate character values into classroom activities. In this case what methods and techniques can be used by school teachers for the integration in a classroom session. Various strategies have been introduced to science teachers of how to integrate character values with subject-matter content during teaching-learning processes. In Indonesia, especially in Jambi, some school teachers are not yet familiar with the ways of teaching character values together with subject matter content in classroom activities because this is a something new for school teachers. In Jambi Province, our present studies are focused on how science school teachers perform the integration of character values with subject matter in science subjects during teaching and learning activities. As a province that is rich in natural resources such as biological biodiversity, science teachers in Jambi should be able to create the innovations in teaching by utilizing a variety of natural resources available in environment as instructional media to teach subject-matter content and to introduce character values as well.

Keywords: Character values, integration, subject matter content, natural science



Current Research On Utilization Of Non-Conventional Feed Resources For Ruminants In Indonesia

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ABSTRACT

In general, the use of NCFR in Indonesia is not common, this is mainly due to the abundance of traditional feed sources, such as grass, leguminous and grains. The term of NCFR refers to feedstuffs that are not commonly used as animal feed either traditionally or as part of commercial ration compilers. Examples of NCFR are rubber leaves, rubber seeds, durian seeds, durian skin, tea grounds, coffee grounds, coffee skins, vegetable waste, oranges peel, could be classified as crop residues (CR), or as agro-industrial by products (AIBP). They categorized as energy rich feed, supplements, additives or as by products. Some of NCFR has been great received attention for ruminant's nutritionist due to their enormous potential for ruminant's feed. The general concept of utilizing the NCFR in the ruminant's diet are understanding the nutritive values and the local availability of those feed. Young rubber leaves and its branches, which is mainly found in Jambi Province, for example, could be used up to 60% of goat diets without detreating performance. Another example is durian waste in the form of seed or husk. Results of our study showed that the average proportion of the outer part, inner part and the ovule of durian waste were 41.8%, 14.2%, and 14.6%, respectively. The in vitro dry matter (DM) degradability showed that the seed and the inner part have the same degradation values of 56%, while the outer part has 48%. More NCFR will be highlighted in this presentation. The objective of this paper is to open our minds that we have enormous feed availability for ruminants in Indonesia in term of NCFR as well as the conventional ones.



Ethnomathematics as a Learning Resource

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ABSTRACT

Mathematical ideas often cause student difficulties with the mathematical concepts being learned. Paying attention to the Zone of Proximum Development (ZPD), the use of contexts around students is an important thing to consider. Ethnomathematics is one part of the socio-cultural elements closest to the lives of students in the form of activities, ideas, and artifacts. The use of cultural elements associated with mathematical ideas can make it easier for students to construct their knowledge. Ethomathematics can be viewed as scaffolding to make it easier for students to build and expand their knowledge. The analysis was carried out on cultural artifacts in the form of works of art. The contents of mathematical ideas are extracted from the observed artifacts. The identified ideas are used as a scaffolding material for mathematics learning. From the observations of the use of cultural artifacts, it was found that students had a very high interest in further learning, besides, they felt it was easy to understand the concepts being learned. However, there are limitations, where not all mathematical ideas can be explained through the available cultural artifacts.

Keywords: ethnomatematics, learning resources, culture



Analysis of Preterm Birth Determinants at a Public Hospital Setting in Municipality of Jambi, Indonesia

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ABSTRACT

Despite worldwide efforts, neonatal mortality remains a major public health problem in many developing countries. Indonesia's neonatal mortality rate has decreased over recent years through a range of governments programs and support from various agencies; however, this positive trend should be well maintained in order to achieve Sustainable Development Goals. Data from Ministry of Health of Indonesia records that preterm birth is considered as the leading cause of neonatal mortality in the country, which accounts for 33% of total death. The purpose of this study was to investigate the factors that associated with preterm birth in Jambi, Indonesia. Data were collected in clinical and non-clinical setting in a public general hospital. The data were analysed using both descriptive and inferential statistics. A total of 200 mothers were included in the study. The results showed that 43% of registered mothers experienced preterm birth. Of the total respondents, 46,50% were categorised at high risk of preterm delivery in women. Age, parity, antepartum haemorrhage, pregnancy gap, and history of chronic disease were variables associated with preterm birth on statistical analysis (p value < 0,05). Despite the general population demonstrating adequate knowledge about women's health and its possible outcomes on health, this study showed the high preterm birth rate. It is required a comprehensive hospital-based maternal health program in order to minimise the risk of potential complication during pregnancy and delivery.

Keywords: Preterm Birth, Determinants, Hospital



Developing Writing For Academic Purposes Learning Materials Integrated by MOODLE for the Second Semester Students of English Education Study Program

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ABSTRACT

There has been an emergent movement to get classes online during Covid 19 pandemic. A number of studies reported that internet access has become major problems on online learning experienced by students and teachers in remote teaching and learning context. However, research investigating how online learning design can best meet both students and lecturers' expectations to help them learn and teach effectively is a little. Therefore, this case study offers insights regarding those issues. Data were acquired from written reflections reported by students and in-depth interviews with the lecturers doing online learning during covid 19 outbreaks. Due to the pandemic and in order to keep physical and social distancing, the written reflections were e-mailed by the students to the first researcher and the interviews with lecturer participants were conducted individually through WhatsApp Call. There were 25 EFL students and 5 lecturers were recruited as the participants of the study. Through in-depth case study, findings reveal both students and lecturers experience frustrating situation where students got too many assignments and learning projects they must complete and they still need the presence of lecturers for their learning. While, lecturers reported that this sudden transition brought them into difficult situation where preparing virtual learning, managing students' engagement, and doing assessments are more challenging. Findings suggest that in order to make online learning more interractive and student-centered, careful preparation and design are needed to support students' learning during coronavirus outbreak or even for its future practices.

Keywords: Academic Writing, EFL, MOODLE



The Effect of Epididymis Preservation at 5oC to Motility and DNA Integrity of Cattle Spermatozoa

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ABSTRACT

This study was undertaken to evaluate the effect of epididymis preservation at 5oC to the motility and DNA integrity of cattle spermatozoa. Twenty cattle epididymis were stored in the refrigerator at 5oC, allotted into four treatments: T0 (control), T1 (24 h), T2 (48 h), and T3 (72 h). The variables measured were motility and DNA integrity. Motility was decreased in T2 (63.5 \pm 3.7%) and T3 (60.8 \pm 4.9%) compared to T0 (71.2 \pm 4.4%) and T1 (69.1 \pm 4,3%). The DNA damage were equal among T0 (7.8 \pm 2.6%), T1 (8.1 \pm 2.9%), T2 (7.9 \pm 3.5 %), T3 (8.3 \pm 3.5%), and T4 (8,2 \pm 3.0%). In conclusion, storage of epididimys for 48 h or more lowered the motility and has no effect to DNA integrity of cattle spermatozoa.

Keywords: preservation, spermatozoa, epididymis, motility, DNA integrity



It is not only about internet access but the Learning Design that Matters: A Case Study of the use of online learning during Covid 19 Pandemic

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ABSTRACT

There has been an emergent movement to get classes online during Covid 19 pandemic. A number of studies reported that internet access has become major problems on online learning experienced by students and teachers in remote teaching and learning context. However, research investigating how online learning design can best meet both students and lecturers' expectations to help them learn and teach effectively is a little. Therefore, this case study offers insights regarding those issues. Data were acquired from written reflections reported by students and in-depth interviews with the lecturers doing online learning during covid 19 outbreaks. Due to the pandemic and in order to keep physical and social distancing, the written reflections were e-mailed by the students to the first researcher and the interviews with lecturer participants were conducted individually through WhatsApp Call. There were 25 EFL students and 5 lecturers were recruited as the participants of the study. Through in-depth case study, findings reveal both students and lecturers experience frustrating situation where students got too many assignments and learning projects they must complete and they still need the presence of lecturers for their learning. While, lecturers reported that this sudden transition brought them into difficult situation where preparing virtual learning, managing students' engagement, and doing assessments are more challenging. Findings suggest that in order to make online learning more interractive and student-centered, careful preparation and design are needed to support students' learning during coronavirus outbreak or even for its future practices.

Keywords: Covif 19 Pandemic, Learning Design, Case Study



Designing English Learning Materials for Student Teachers of Early Childhood Education Program at Jambi University: A Need Analysis

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ABSTRACT

This need analysis study was aimed at looking for what are students' needs for learning English in their program. This needs analysis will look at the extent of students' knowledge about English and what is not known yet, and what they need of learning English at the university level. The researchers employed the interview as primary instrument and questionnaires as the secondary instrument to collect the data. The questionnaire was delivered to see the basic information of the study. Meanwhile, the interview was undergone to know the real conditions at the classroom activities during English lessons. The participants are 50 student teachers of Pendidikan Anak Usia Dini (PAUD) at Universitas Jambi whose took English subject last semester. The findings show that the students need all of the skills (reading, speaking, listening, writing) in English language learning. For the elements of language, majority students are really wants to learning vocabulary. In addition, specially for the learning materials, majority students (60.2%) want to learn about English Kid songs that they mentioned they really need when they want to teach children an English lesson. They also need to learn about vocabulary and Engish conversation more than learn Grammar or reading. The result of the study will be worth information for the researchers to desin English text book that bes fit to the students' needs.

Keywords: Textbook, need analysis, learning materials.



Designing a Textbook for Language Curriculum and Material Design: A Need Analysis

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ABSTRACT

This need analysis study is aimed at portraying what are students' needs for learning Language Curriculum and Material Design in their Master program degree. This needs analysis looked at the extent of students' knowledge about Language Curriculum and material design and what they actually need as educators. The researchers used interview as primary instrument and questionnaires as the secondary instrument to collect the data. The questionnaire was delivered to see the basic needs of the students and the interview was carried out to know the real conditions of the classroom practices. The participants are 40 students of English Master Program at Universitas Jambi whose took Language Curriculum and Material development subjectt. The findings show that the students need to know the concept of curriculum in general in in more specific terms in relation to language teaching and learning. For the elements of language learning materials, they need to know about the syllabus, lesson plan, and the curriculum design, the majority of students are really wants to learn how to design learning materials in practice (82,5%). They also mentioned that most the teaching activities during the semester emphasize on theory rather than practical issues. Based on the results of the need analysis study, the researchers will design the textbook that can accomodate the students' need which in turn can help students optimize their learning experience and knowledge of language curriculum and material design.

Keywords: Textbook, need analysis, learning materials.



Student Acceptance and Readiness in Applying E-Learning in Jambi University: Structural Equation Modelling

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ABSTRACT

This study focuses on aspects of attitudes and behavior at the individual and psychological level by introducing a unique model of endogenous and exogenous factors integrated with TAM theory. In Jambi University and FKIP in particular, there is no research dedicated to exploring how the role of the Technology Acceptance Model as a factor that influences student acceptance and readiness in the application of online learning. This research is a quantitative study with a survey design. The researcher took the location at FKIP Jambi University, namely students who are still active as students, totaling 305 students of the Jambi University FKIP. Data analysis using PLS-SEM. This study found that there are eight hypotheses that support the testing of the TAM and TPB models in student acceptance and readiness in implementing online learning. The online self-efficacy variable construct has no significant effect on the perception of convenience. This research was conducted with a number of undergraduate students who participated in the PGSD Study Program. In future research, current research can be repeated with more participants at different levels of proficiency across different study programs to increase the generalizability of findings. A more in-depth explanation will be explained in the discussion section and some recommendations or optional for campus policies to design readiness and acceptance of online learning, especially in dealing with the COVID-19 pandemic at Jambi University.

Keywords: Need analysis, computer-based instruction



Exploring Student' Metacognitive Failure Based On Red Flag In Mathematics Problem Solving

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ABSTRACT

The purpose of this article is to explore student's metacognitive failure based on red flag in mathematics problem solving. Red flag is a term that indicates the metacognitive failure was occured, which is characterized by (1) there is an error detection, (2) no progress at processing step of activities, and (3) there is an ambiguity in the final answer, that can be appeared in metacognitive activities. There are three metacognitive activities, i.e (1) metacognitive awareness, (2) metacognitive evaluation and (3) metacognitive regulation. At least, 10 students are determined as research subject candidates who are organized by two groups. The first group is consist of students who are assigned to create an exemplification by using numbers, meanwhile another group contain of students who use some formula to solve the problem. Consequently, two research subject were taken from each groups. The data were collected by assignment sheet which will be completed by the subject through think aloud and followed by interview based on the results of their works. The findings in this study showed that students who solved problems by making assumptions using numbers had 10 metacognitive failures, which includes all red flags. Equally important that, students who used formulas in solving the problems had three metacognitive failures which included all red flags.

Keywords: metacognitive failure, activity metacognitive, red flag, problem solving



Determinants of Male Participation in Antenatal Care

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ABSTRACT

Background: Antenatal care is very important for maternal health. Male involvement can affect the delays in decision making to seek, reach, and utilize antenatal health services that have an impact on maternal mortality, as well as the right way to improve family quality that promote gender equality.

Objectives: This study aims to assess the level of male participation and to analyze the determinants of male participation in antenatal care.

Methods: A cross sectional study through a survey of 381 men selected by multistage random sampling was conducted in Muaro Jambi District from July to September 2020. The outcome variable was male participation in antenatal care was contructed from eight dichotomized indicators which measurement results were low (scored 1 and 2) and high (scored 3 and 4). A Multiple logistic regression analysis was performed using SPSS 24.0 at a significance level of 0.05.

Results: The level of male participation in antenatal care was still low (41.2%). Simultaneously, the determinants were age (OR = 1.858, 95% CI = 1.066-3.240), number of children (OR = 2.909, 95% CI = 1.532-5.522), income (OR = 1.715, 95% CI = 1,060-2,775), and knowledge (OR = 3,706, 95% CI = 2,320-5,919). The knowledge factor is the main determinant related to male participation in antenatal care in Muaro Jambi Regency.

Conclusion: Male participation in antenatal care in Muaro Jambi District was still low which influenced by age, number of children, income, and knowledge. Health promotion efforts are needed through providing communication, education and information intensively to empower men for meaningful involvement in antenatal care.

Keywords: male participation, antenatal care.



The Induction of Biotic Stress-Resistance and Increasing Growth and Yield of Chili Pepper (Capsicum Annuum L.) Using Cow Bio-Urine and Tricho-Compost

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ABSTRACT

Chili pepper (Capsicum annuum L.) is an important horticultural commodity with a high economic value in Indonesia. However, the cultivation of this crop is hampered by biotic stress such as pests and diseases attack causing low productivity of the plants. Our invesigation aimed at obtaining chili peppers (Jambi local variety) that were resistant to biotic stress through induced-resistance mechanisms, and obtaining optimal combination of cow bio-urine and tricho-compost composition that support plant growth and yield. This research was conducted from April through to September 2019 at the Plant Diseases and Biological Agents Laboratory, followed by field trial at the Experimental Farm, Faculty of Agriculture University of Jambi. A Split Plot design was employed in this study with the concentration of cow bio-urine as main plot and composition of tricho-compost as sub plot. The results showed that the application of 60% cow bio-urine on various tricho-compost compositions within growing media was able to induce plant resistance against biotic stress. The number of plants showing disease symptoms ranged from 13.3% to 16.0%, and was classified as mild biotic stress (< 25%). Likewise, the symptom of fruit disease was classified as mild, indicating that plants were resistant to biotic stress. The application of cow bio-urine at various tricho-compost compositions showed a negative linear correlation against total chlorophyll and sugar content. The application of 60% cow bio-urine at different tricho-compost compositions within the growing media produced better growth and yield of chili pepper rather than other combinations. This was indicated by higher number of productive branches, number of flowers and fruit sets, and total weight of fruit per plant. In general, it can be concluded that the use of 60% cow bio-urine in along with with 25% tricho-compost within growing media was an optimal combination in inducing biotic stress resistant, as well as promoting growth and yield of chili peppers.

Keywords: plant stress resistance, induced-resistance, chili plants, biotic stress, trichocompost, bio-urine



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Electrodeposition of Zn-macaranga gigantea sap extract as an environmentally friendly corrosion inhibitor of steel in sulfuric acid solution

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ABSTRACT

Macaranga gigantea trees are found in the forests of Jambi (Indonesia) and have sap on their trunks. Macaranga gigantea extract contains secondary metabolites such as phenolics, tannins, and flavonoids. The surface coverage of the steel surface of 0.98 by electrodeposition of the Zn extract of Macaranga gigantea sap on steel and able to inhibit steel corrosion in a sulfuric acid solution. The addition of macaranga gigantea sap extract increases the efficiency of corrosion inhibition

Keywords: Macaranga gigantea, Zn, electrodeposition, inhibitor, corrosion



Design of Molding Tool for Manufacturing of Disposable Plate from the Areca Palm (Areca catechu L.) Sheath Using Quality Function Deployment Method

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ABSTRACT

Increased awareness of the environmental impacts associated with the production and use of plastic plates gave rise to the idea of producing environmentally friendly plates from natural materials, such as the areca palm (Areca catechu L.) sheath. To make areca sheath plates, a molding tools are required. This study aims to improve the quality of the molding tool using the QFD Method. This method consists of four phases, namely: (1) Product Planning, (2) Part Development, (3) Process Planning, and (4) Production Planning. On the base of the result of analysis customer requirements generated a list of the five priority of customer need, namely: (1) not tiring, (2) not rusty mold, (3) compact, sturdy and stable chassis, (4) ergonomic, and (5) replaceable mold. There are five quality characteristics to meet the five customer needs, namely: (1) automaticly press, (2) ergonomicly chassis, (3) not rusty material of mold, (4) rigid and strength material of chassis, and (5) minimalized dimension of mold. Conclusions, by using the four phases of the QFD Method was successfully designed for the areca plate mold tool that meets customer needs.

Keywords: design, molding tool, areca sheath plate, QFD Method



Increasing of Oil Palm Production in Ultisol Through Biofertilizer Application

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ABSTRACT

One of the efforts to increase oil palm production at sub-optimal land is the application of inorganic fertilizers which can increase oil palm production quickly. However, the continuous use of chemical fertilizers with high doses has a negative impact on soil and environment. To overcome the negative effects of inorganic fertilizers is to reduce the use of inorganic fertilizers through biofertilizers application. Arbuscular Mycorrhizal Fungi (AMF) is one of the biofertilizers that can help plants to absorb nutrients and increase plant resistance to environmental stress. The purpose of this study was to obtain the best dosage of inorganic fertilizers that can be substituted with biofertilizers (AMF) which can increase oil palm production in Ultisols. This experiment is a factorial design using a randomized block design, the first factor is the application of biofertilizer (AMF inoculation) which consisted of two levels, AMF innoculation and none of innoculation. The second factor is the dose of inorganic fertilizer which consists of 5 levels: without inorganic fertilizer, 25%, 50%, 75%, and 100% of recommended dosage. The variables observed are number of bunches, fruit weight per bunch, fresh fruit bunch production per plant and per hectare, P content and mycorrhizal colonization. The results showed that there are interaction between the application of AMF innoculation and various doses of inorganic fertilizers was able to increase the production of oil palm. The application of AMF and inorganic fertilizers at a dose of 75% of the recommended dosage can increase the best oil palm production in ultisol.

Keywords: Oil palm, ultisols, Arbuscular Mycorrhizal Fungi, inorganic fertilizers, biofertilizers



Design of Table Tenis Based (Portable)

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ABSTRACT

In general, the purpose of this research is to produce an innovative design for a portable table tennis design. This research and development uses a qualitative approach and uses the Research & Development (R & D) development research method with the hannafin model. The subjects in this research and development are table tennis community, table tennis expert. The instruments used in this research and development were questionnaires, questionnaires, and interviews.

This study has the results of the table tennis pkar test with results of 81.53%, namely the product is valid and suitable for use. While the questionnaire distribution test to 30 user respondents obtained a score of 83.8%, namely the product is valid and suitable for use. From the comments of table tennis experts, we get suggestions for improving the ease of folding the table and have been repaired using metal hinges and anvil. So it can be concluded that the portable table tennis product is suitable for use.

Keyword: Table Tenis, Portable



The Effectiveness Of Online Learning And Its Quality Achievement Level During Covid-19 Pandemic

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ABSTRACT

During the crisis Covid-19 pandemic, there is a shift from the regular learning process to online learning. This study aims to examine the effectiveness of online learning and its impact on the achievement of the institution's quality standards at Universitas Jambi. The study employes a descriptive and evaluative survey method where the lecturers and the students were surveyed to find their perspectives about the implementation of online learning. The findings of the study highlight that as many as 403 lecturers (72%) regard the online learning process has been appropriately implemented in terms of technology (75%), pedagogy (67%), ethics (79%), facility support (68%), evaluation (67%) and interface design (68 %). Moreover, there were 7806 students perceived that online learning has been very effective when viewed from its practical aspects (65%), interactivity (62%), other learning sources (74%), collaboration (68%), authenticity (73 %) and control learning (80%). The impact on the achievement of the institution's quality standards of graduate competence is considered 'good' including the competent categories in data literacy (67%), technology (80%), and humanism (69%). In addition, the result also reveals that the content standards have been appropriate with the competence standards which are reflected in the Graduates Learning Achievement (79%); the process standard is considered 'good' (40%), and the CPL (the Graduates Learning Achievement) is achieved (70%).

Keywords: COVID 19, effectiveness, impact, online learning, standards



Exploration and Characterization of Cinnamon Germplasm (Cinnamomum Burmannii BL.) As A Source of Biopharmaca

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ABSTRACT

Cinnamon plants in Kerinci Regency and Sungai Penuh City are widely planted in all districts at an altitude of 700-1500 m asl as of this condition causes morphological variations in the cinnamon plant. The aim of study was to collect information on the morphological characters of cinnamon germplasm as a source of biopharmaca. Samples were collected using proportional stratified random technique. Direct observation and measurement of each character that was measured qualitatively and quantitatively employing the descriptors of the International Plant Genetic Resources Institute. There were 28 selected morphological characters consisting of 8 qualitative characters and 20 quantitative characters. The exploration results obtained 9 accessions of cinnamon from Kerinci Regency and 3 accessions from Sungai Penuh City. The morphology characterization results of the cinnamon plant revealed that there were differences in both qualitative and quantitative characters. The qualitative characters data indicated two criteria of each criterion i.e. very broad, broad, narrow, and very narrow. The quantitative characters provided criteria that were 2 very broad, 1 narrow, and 17 very narrow.

Keywords: Cinnamomum burmannii, morphological characters, qualitative and quantitative *characters*



Metacognitive Chemistry Education Students in Solving Chemical Equilibrium Problems

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ABSTRACT

Problem solving is a process used to solve problems. The problem solving process involves metacognitive activities for someone who can explore metacognitive thinking skills, especially in regulating and controlling cognitive activities. Learning in chemistry education leads students to explore metacognitive thinking skills through problem solving. One of the materials that is the problem is chemical equilibrium. Solving chemical equilibrium problems requires good metacognitive skills. This study aims to describe the metacognitive skills of chemistry education students in solving chemical equilibrium problems. This research is a descriptive qualitative research. The research data were descriptive texts of students' metacognitive skills in problem solving which were collected through problem solving tests and interviews. The test results obtained were analyzed qualitatively. Metacognitive skills data analysis techniques from the interview results using the analysis model of Miles and Huberman. The research subjects were 32 students of Education Chemistry Study Program, Education and Teacher Training Faculty, Jambi University. The results showed that 4 students did problem solving by just experimenting, so that the tests that were carried out were not quite right. The results of the interview stated that the students did not understand the problems in the questions. 14 students had difficulties and were confused about problem solving solutions but their understanding of the problems was quite good. The results of the interview stated that the students were aware of their weaknesses. 7 students were able to solve problems and check problem solving. The results of the interview stated that the students realized that there was a mistake in solving the problem given, but the students were hesitant to correct the error. 7 students demonstrated near-perfect overall problem solving skills and rechecking their work. The results of the interview stated that the students were aware of their abilities.

Keywords: Metacognitive Skills, Problem Solving, Chemical Equilibrium.



Technical efficiency and agricultural sustainability of Jambi's corn production

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ABSTRACT

Jambi is a unique province in Indonesia that has a diverse climate and natural resources to improve the yield of many commodities like corn. In terms of improving domestic corn and decreasing production loss, more producers apply high portions of un-organics fertilizers, and pesticides, with not thinking about the impact of temporary and long-time environmental problems. The research aim was to analyse technical efficiency and sustainable corn production through sustainable agriculture in Jambi province. Technical efficiency and agricultural sustainability model applied using a stochastic production frontier. Research location was chosen in peatland, and also data were collected through interviewing 120 corn producers in Muaro Jambi that chosen by systematic random sampling. The research finding of the analysis showed mean technical efficiency scores of about 74%, meaning that the agricultural production in Jambi produces 74 percent of the potential output given the technical efficiency available in research location. Agricultural sustainability result also give a good implication on corn production. This means that the technical efficiency and agriculture sustainability of a relatively sustainable region in corn production had impacted properly.

Keywords: technical efficiency, corn production, and sustainable agriculture



CH4 Gas Mitigation Strategy with Interpretative Structural Modeling Method

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ABSTRACT

Climate change is related to greenhouse gases (GHG), one of the sectors that produces GHG is the livestock sector which comes from enteric fermentation and manure management in the form of CH4, CO2 and N2O. The livestock sector contributes around 18-51% of anthropogenic GHG. The national contribution of GHG emissions from the livestock subsector is around <1.5%, but globally it contributes 12% of total world emissions. This study aims to develop a CH4 gas mitigation strategy in cow manure management based on the ISM (Interpretative Structural Modeling) method. The results of the ISM analysis show that the causes of CH4 gas are: (1) the quality of human resources, (2) the number of livestock, (3)livestock management, (4) limited infrastructure. To mitigate CH4 gas, several strategies are needed, namely (1) providing additional concentrate feed, (2) building a biogas installation and making compost, (3) building good cow shed facilities.

Keyword: CH₄, ISM, Manure, livestock.



Study Of Smallholder Palm Oil Plantations Competitiveness And Its Implications On Input-Output Price Policy Scenario In Jambi Province

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ABSTRACT

Palm oil commodity has become one of Indonesia leading export commodity for its very good comparative and competitive advantages. Indonesia government continues to strive to make oil palm plantations more productive because its contribution to national economy has become increasingly significant. One of the leding palm oil production area in Indonesia is Jambi Province. Jambi Province Plantation statistics show that over the past five years, the area of oil palm plantations in Jambi Province has experienced an average growth of 4.28 percent per year. The purpose of this study was to analyze the competitive and comparative advantages of smallholder oil palm plantations and to determine the best alternative policy scenarios to improve the competitiveness of smallholder oil palm plantations in Jambi Province. The competitiveness of oil palm plantations in this study was analyzed by using PAM model. The results of data analysis show that smallholder oil palm plantations in Jambi Province are highly competitive. The government's policy towards production input prices and oil palm commodity prices has been effective simultaneously. There is a policy to control the price of input (fertilizer) with a protection and subsidy policy, a strict control on the price of oil palm fresh fruit bunches (FFB), and an effective input-output protection policy for oil palm plantations. The best scenario to increase the competitiveness of oil palm plantations is to increase the price of FFB, and provide subsidies for production input prices, especially fertilizers.

Keyword: Competitiveness, input-output price, palm oil, plantations, policy scenario, smallholder



Performance of Java Super Native Chicken and Catfish Floating Net Cage Reared Above the Former Pool of the Small Brick Industries

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ABSTRACT

This fields experiment research aims to analyze the performance of integrated super-native chicken farms and catfish that are cultivated on the floating net cages (FNC) in the former ponds of the small brick industry in Jambi Province, Indonesia. The results showed that the production performance of Java Super Native Chickens (JSNC) was higher (FCR 2.3) than conventional farming (2,17-2,20), but economically feasible to develop (IOFC 1.17 and Profitability 16.7%). Performance of FNC catfish that are cultivated directly under enlarged chicken coops has improved compared to the level of revenue cost ratio (RCR 1.26, average selling weight of 67 days 127.45 grams with a proportion number catfish feasible to sale 38.40%, FCR (0.75) and IOFC 1.66. The results of this study indicate that there is a symbiotic mutualism between the two commodities, where the remaining feed of grower chickens that spill into floating net cages is an alternative source of catfish feed that is cultivated under the cage. Based on this rEsearch, it can be concluded that the integration between the two commodities is more profitable.

Keywords: native chicken, catfish, small brick industry, floating net cages, integrated



The Role of Whistleblowing in Preventing Village Fund Management Fraud in Jambi Province

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ABSTRACT

The purpose of this study is to describe and provide empirical evidence regarding the role of whistleblowing in the prevention of Village Fund management fraud. This research is quantitative descriptive. The data source used in this research is primary data. The data was collected using a survey method in the form of a questionnaire. The population in this study were villages that received Village Funds spread over 9 districts in Jambi Province. The sample used in this study using purposive sampling technique as many as 18 villages spread over 9 districts in Jambi Province. Data analysis using Structural Equation Modeling (SEM). The research results prove that the financial reporting compliance and whistleblowing have a significant effect on fraud prevention. Morality as a moderator of the relationship between financial reporting compliance and whistleblowing in fraud prevention.

Keywords: Compliance Financial Reporting, Morality, Whistleblowing, Fraud



The Development of Local Culture Based Material for Teaching FOLK POETRY for Junior High Scool Students

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ABSTRACT

This study aims to develop teaching materials for folk poetry of class VII SMP. The research on the development of teaching materials was based on the results of the initial survey, that there was no adequate folk poetry teaching material for learning Indonesian Language and Literature, especially for grade VII. This has become one of the inhibiting factors in the teaching and learning process, especially literary appreciation learning, namely learning to appreciate folk poetry. The development of folk poetry teaching materials is expected to help students appreciate literature and achieve optimal learning objectives. This research employed research and development methods (Research and Development). The result of this development is a product in the form of folk poetry textbooks for grade VII SMP. This development product was validated by two experts, namely material experts and learning design experts. Product testing was carried out by grade VII teachers, individual trials, small group trials, and field trials. The results of the assessment / responses are used to revise the product as part of the process of improving the teaching materials developed. The results showed that the people's teaching materials developed were categorized as good. Learning material experts and design experts provide a good assessment of the teaching materials developed. Teaching materials are considered to be interesting and effective so they deserve to be tested. The assessment of teachers who taught, for folk poetry teaching materials obtained an average percentage value of 89%, the results of individual trials of 84%, the results of small group trials of 96% and of field trials of 97%.

Keywords: Development, teaching materials, folk poetry.



The Implementation of Integrated Thematic Learning based on 2013 Curriculum in a Elementary School in Jambi Province, Indonesia.

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ABSTRACT

The purpose of this study to find out and analyze the implementation of integrated thematic learning of curriculum 2013 in Public Elementary School Number 55 / I and Public Elementary School Number 111 / I, Muara Bulian District, Batanghari Regency. This type of research is descriptive qualitative with the methods of observation, interviews, and document analysis. The results showed that first, at the State Elementary School Number 55 / I, there were four ways of implementing the Learning Implementation Plan (RPP); the teacher uses the lesson plan by downloading it completely from the MoNE blog, the teacher downloads the lesson plan and revises the part that is deemed inappropriate, the teacher designs or designs the lesson plan by himself, and the teacher teaches without using the lesson plan, that is, the teacher is only guided by the 2013 Curriculum Integrated. All teachers in this school have implemented integrated thematic learning optimally, but not fully optimally. This is due to the inadequate professional readiness of teachers, guardians of students who have not fully supported student learning activities, and the school environment is not yet conducive. Attempts have been made to carry out evaluations in elementary schools to refer to authentic assessments, but they have not been implemented optimally. Because, authentic assessment must measure all aspects, making it difficult for teachers to manage time effectively. The facilities and infrastructure at the State Elementary School number 111 / I Muarabulian are not sufficient to support the implementation of integrated thematic learning optimally. The most needed facility is the library room, but here the library room is not yet adequate and the books are not complete.

Keywords: Integrated thematic learning, 2013 Curriculum, Elementary School.



The Role of Transforming Growth Factor (TGF) ß-1 Genetic Variant as Risk For Renal Complication in Diabetic Patients Pre-Liminary Study in Jambi Malay Population

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ABSTRACT

Introduction the diabetic milieu induced Transforming Growth Factor (TGF \(\beta\text{-1}\)) expression which have play role in excess deposition of extra-cellular matrix leads to decline renal function. Genetic variants of TGF \u03b3-1 alter TGF \u03b3-1 level or function and predict risk for diabetic renal complication but the result still controversial beyond population worldwide. Early assessment of genetic risk may enhance better treatment. Genetic variants as risk of the diseases also influenced by ethnicity, to the best of our knowledge association of TGF-B genetic variant with renal function in diabetic patient never conduct in Jambi Malay population. Aims of this study was to revealed of TGF-B genetic variation role as risk factor for renal complication in diabetic patients. Methods this study was cross sectional, totally 70 diabetic patients who fulfilled research criteria was participated to this study. As much 22 patients have diabetic renal complication sign by decline renal function sign by GFR less than 60 mL/min/1.73. Genotyping was performed by Amplification Refractory Mutation System Polymerase Chain Reaction (ARMS-PCR) for TGF β-1 rs1800470 T/C and the Deoxyribonucleic Acid (DNA) was extracted from peripheral vein buffy coat. Bivariate and multivariate analysis was performed. Result bivariate analysis reported subject with TT have higher risk for diabetic renal complication (p value: 0.004; OR: 9.60; 95% CI: 1.83-50.29) than CC genotype. Predictive logistic regression analyzed other variable which also contributed to diabetic renal complication simultaneously (uncontrolled blood pressure and blood plasma glucose) reported similar trends (p value: 0.009; OR: 12.34; 95% CI: 1.88-80.87). Conclusion subject with TT of TGF β-1 rs1800470 have higher risk than other genotype for having diabetic renal complication, the risk was higher in subject with uncontrolled blood pressure and blood glucose. Further research with larger sample and other genetic variation was needed.

Keywords: $TGF \beta$ -1 genetic variation; diabetes mellitus; diabetic renal complication



The Use of Local Feed Ingredients Processed Using Probiotic and Prebiotic Precursor as A Replacement For Broiler Commercial Diet

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ABSTRACT

Formulating a poultry diet based on local feed ingredients processed using probiotics and prebiotic precursor, is an altervative to produce a low cost diet containing natural growth promoters in the form of probiotic, prebiotics and postbiotic metabolites. The study aimed to evaluate the use of broiler diets formulated from local feed ingredients - palm kernel meal, feather waste and trash fish - processed using probiotic plus prebiotic-precursor (Pro-diet) to substitute commercial diet (Com-diet) in pre-starter and starter periods. A total of 200 oneday-old chicks (MB 202-P) unsexed randomly assigned into five dietary treatments with four replications, concisting of 10 chicks each. The treatments applied were the use of Pro-diet as substitution of Com-diet: T0 (100% Com-diet), T1 (25% Pro-diet + 75% Com-diet), T2 (50% Pro-diet + 50% Com-diet), T3 (75% Pro-diet + 25% Com-diet), and T4 (100% Prodiet). The parameters observed were feed intake (FI), body weight gain (BWG), feed conversion ratio (FCR), protein intake (PI), and protein efficiency ratio (PER). The data were analyzed by analysis of variance (ANOVA) with Duncan's post-hoc at 5% probability. The result showed that in the pre-starter period (0-1 week), there were no significant difference between T1 compared to T0 of all the parameters. In the same period, T2 had similar FCR and PER, however lower FI; BWG; and PI, compared to T0. In the starter period (2-3 weeks), T2 resulted in similar BWG; PI; FCR; and PER compared to T0. Meanwhile, T3 and T4 resulted in lower BWG, PI, FCR and PER, however they had similar FCR and PER compared to T0. It could be concluded that the Pro-diets based on local feed ingredients processed using probiotics and prebiotics-precursor can be used to substitute of commercial diets at 25% in the pre-starter period and 50% in the starter period.

Keywords: broiler diet, Local feed ingredient, prebiotic, probiotic



Comparative analysis of Application of Model Poverty in Rural and Urban Areas on the island of Sumatera

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ABSTRACT

The purpose of this research is to know and analyze how the characteristics of all poverty indicators, namely poverty level, severity index and poverty depth index in rural and urban areas in the island of Sumatra and to know and analyze how the influence of HDI, GRDP and per capita expenditure, against poverty levels in rural areasand urban areas on the island of Sumatra, during 2011 to 2019 the highest average poverty rate in the province of the island of Sumatra in the highest urban area was Bengkulu Province with an average of 16.4% and the lowest was in the Province of Bangka Belitung Islands, namely 3.17% while The average poverty rate in the province of Sumatra Island in the highest rural area is Aceh Province with an average of 19.4% while the lowest province is Bangka Belitung Islands Province at 7.1%, the highest poverty severity level in urban areas is Bengkulu Province, namely 0.75 and the lowest in Bangka Belitung Islands province is 0.08, while the highest poverty severity level in rural areas is Aceh Province, namely 0.97 and the lowest is Bangka Belitung Province, namely 0.20, and for the average poverty depth index in the region The highest urban area is Bengkulu Province, namely 2.8, and the lowest is Bangka Belitung Islands, namely 0.41, se mentara for rural areas The highest average depth index is Aceh province 3.57 and the lowest is Kepualaun Bangka Belitung province which is 0.94The regression results show that HDI has a positive and significant effect on poverty levels in rural and urban areas in the island of Sumatra, while GRDP and per capita expenditure do not have a significant effect on poverty levels in rural and urban areas on the island of Sumatra.

Keywords: poverty level, severity index, depth index, human development index, gross regional domestic product, per capita expenditure



Straw- and Coffee Husk-Based Biochar For Mitigation Greenhouse Co2 and N2o Emission Generated From The Soils of Palm Oil Plantations

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ABSTRACT

High concentrations CO2 and N2O released from soils of palm oil plantations contribute to global warming. Forest canopy loss during forest transformation to palm oil plantation reduces capacity of the forest to absorb CO2 during photosynthesis and exposes soil organic C to high temperatures and humidity that accelerate decomposition the soil organic C and release CO2 gas to atmosphere. Application N fertilizer to the palm oil plantations contributes to improvement of N2O emission from the soils. This aims to study the effects of biochar amendment to the soils on CO2 and N2O emission released from the soils through incubation experiments. Two agricultural wastes (straw and coffee husk) pyrolyzed at 4000C and 6000C to produce biochar. The soils collected from small holders palm oil plantation were amended with biochar (0, 2, 5 and 10% w/w) in a 1000 ml glass bottle and the incubation at room temperature for 30 days. Similar experiments were conducted by addition N fertilizer in the form of NH4NO3 into the soil-biochar mixture. The gas generated was collected from the bottle head space on the day 0, 1, 2, 4, 8, 15 and 30 using 12-ml vials and stored in freezer at -50C until analysis. The biochar and soil were characterized with FTIR, XRD and SEM-ADS. The CO2 and N2O gas were analysed with acid-base titration and GC, respectively. The result indicates that amendment of straw-based and coffee husk-based biochar to the soils reduces the gases emission generated from the soil. Amendment N fertilizer to the soils increases N2O emission. More research efforts are needed to confirm the research findings by accounting the soil C organic and mineral contents.

Keywords: greenhouse gasses, biochar, incubation, soil, palm oil plantation



Application of Stale Rice Local Micro-Organism as A Decomposer to Household Waste and Mung Bean Plants in-Home Yard

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ABSTRACT

Leftover rice that is not consumed at a certain time will turn stale because it is overgrown with yellowish-orange fungus. This fungus can be cultivated and used as a starter (microorganism culture) or a decomposer to process household waste and to fertilize mung bean plants in the PKK group home yard in Rambahan village. The use of fungus in stale rice is called stale rice LOM technology. This technology is applied to home yard waste and mung bean plants grown by PKK groups in their home yards at Desa Rambahan. Technology application activities are done with participative methods and technology demonstrations to the target group and plot demonstrations. The results of the activity showed community participation in the value of percentage to attend at the time of extension was classified as moderate, following the technology counseling was classified as high, making technology classified as high, land cultivation for planting classified as low-moderate because it was helped by family members.

Keywords: Houses; yards; stale rice; MOL; beans; villages



Designing Learning Materials for Non-English Students at Jambi University: A Need Analysis

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ABSTRACT

This analysis study is aimed at looking for what are students' needs in relation to their learning English focusing on General English for non-English students at Universitas Jambi. This needs analysis will look at the extent of students' knowledge about English and what is not known yet, and what they need of learning English at the university level. The researcher used interview as primary instrument and questionnaires as the secondary instrument to collect the data. The questionnaire was delivered to see the basic information of the study. Meanwhile, the interview was held to know the real conditions at the classroom. The participants are 53 students of Pendidikan Bahasa dan Sastra Indonesia at Universitas Jambi whose took English subject. The findings show that the students need all of the skills (reading, speaking, listening, writing) in English language learning. For the elements of language, majority students are really wants to learning vocabulary. In addition, especially for the learning materials, majority students (51.35%) want to use Monologue or Dialogue with picture in listening skill. In speaking, most of participants (43.24%) choose the simple monologue or dialogue to help them understand the lesson. In reading skill, most of students (59.45%) need texts related to the Language Teaching. The last, amount of students (35.13%) need vocabulary related to Language Teaching in writing skills.

Keywords: Textbook, need analysis, learning materials.



Entrepreneurship Intentions of Students in Jambi Province (A Study in response to the implementation of the Kampus Merdeka/Independent Campus and Merdeka Belajar/Freedom to Learn)

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ABSTRACT

This study aims: 1) to analyze the characteristics of students' entrepreneurial intentions in Jambi Province; 2) to analyze the factors influencing students' entrepreneurial intentions in Jambi Province. The main data used are primary data gathered from students as respondents in Jambi Province. Descriptive statistical tools, frequency tables, and cross tabulations have been used to evaluate individual characteristics of the respondents and their entrepreneurial intentions. This study uses the Structural Equation Modeling (SEM) to analyze the variables that affect students' entrepreneurial intentions.

The results of this study found that entrepreneurial intentions of students in Jambi Province are relatively high. It shows that students have a strong potential to become young entrepreneurs in the future. Individual characteristics, attitude and contextual factors have a significant influence on the students entrepreneurial interests in Jambi Province.

The results of this study are intended to be a model for increasing entrepreneurship and reducing the unemployment rate for university graduates in particular. In addition, these findings are also expected to provide basic information on the implementation of Kampus Merdeka (Independent Campus), particularly at universities in Jambi Province and generally in Indonesia. This is because one of the policy priorities is to encourage the entrepreneurial intentions of students and the options for student to engage in entrepreneurship.

Keywords: Entrepreneurial intentions, Freedom to Learn, Independent Campus



Socio-Economic Determinants of Community Participation in the KB Family Program in Jambi Province

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ABSTRACT

The rapid growth of the Family Planning (KB) Village in Jambi Province indicates that the government is paying a great deal of attention to this program in order to enhance the quality of life of the population. The effectiveness of the KB Village in enhancing the quality of life is, however, primarily determined by the level of community participation. Studies on the level of community participation in the KB family program and the factors influencing it have been carried out. However, an analysis on this subject has never been carried out in Jambi Province. This study is therefore required to help the KB Village Program in improving the quality of life in Jambi Province. This study aims: 1) to analyze the level of community participation in the KB Village in Jambi Province; and 2) to analyze the factors that affect the level of community participation in the KB Village in Jambi Province. Primary data were obtained from the survey of respondents in the target group of the KB Village in Jambi Province. The analytical tools used are descriptive statistical tools and OLS regression model. The results of the study found that, in general, the level of community participation in Family Planning program is in a moderate category. However, based on its stages, the participation in the planning and the evaluation are categorized as low. On the other hand, the level of community participation is categorized as high. Statistically, educational attainment, type of main activity, and distance between house and location of the activity have a significant impact on the level of community participation in the programs of KB Village.

Keywords: Community Participation, Family Planning, KB Village



The Impact of the COVID-19 Pandemic on the Socio-Economic Conditions of the Community in Jambi City

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ABSTRACT

This study aims: 1) to analyze the impact of the COVID-19 pandemic on the socio-economic conditions of the population in Jambi City; 2) to analyze coping strategies adopted by households to survive during the COVID-19 pandemic. Primary data were collected from household surveys in Jambi City. This study uses a quantitative-qualitative approach using descriptive methods. The results of this study found that the COVID-19 pandemic has a negative impact on the people in Jambi City. 13.27 percent of them have lost their jobs. The average income has decreased by 41.57 percent, either due to job loss or decreased productivity. In terms of social conditions, 76.75 percent of the community has reduced the frequency of their social activities. To overcome the negative impact of the COVID-19 pandemic, and particularly to meet the daily needs, households have combined various strategies both by generating additional income and cutting back expenses. The results of this study are intended to be meaningful as a framework for government policy to address the negative impact of the COVID-19 pandemic on the community welfare. Theoretically, this study would enrich the literature and concepts of disaster management in society.

Keywords: Coping Strategy, COVID-19, Pandemic



The Urgency of Academic Paper in the Formation of Regional Regulations Based on Legislation

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ABSTRACT

Regional Regulations have a very strategic role in the implementation of regional governance. Various efforts to improve the quality of Regional Regulations are continuously being made. including through Law Number 12 of 2011 concerning the Formation of Laws and Regulations which require the preparation of academic paper. This study aims to identify and analyze the urgency and implementation of academic paper formulation in the formation of Regional Regulations based on Legislation. The research method used is normative juridical research, by examining the prevailing norms in the formulation of a guideline in the form of a text using a statutory approach and a historical approach. The results showed that academic paper have a very important urgency to create good and quality Regional Regulations. Academic paper are very important in the process of forming laws and regulations when faced with statutory problems that are considered unresponsive, egalitarian, futuristic, and unqualified. Through academic manuscripts, each Regional Regulation Draft that gets a scientific touch can produce Regional Regulations of higher quality and can be categorized as good legislation. Given its very vital urgency, it is hoped that the drafters of Regional Regulations (Regional Government and DPRD) compile an academic paper first before compiling a Regional Regulation Draft and provide legal standing for academic drafters in the formation of Regional Regulations that need to be regulated in Legislation.

Keywords: Urgency, academic paper, regional regulations.



Restorative Justice as An Alternative to Resolve Corruption in The Perspective of Criminal Purposes

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ABSTRACT

This research is motivated by the rampant corruption crimes committed by state officials. The problem is that the state's financial losses due to the criminal act of corruption with the current system have not been able to recover the state's financial losses. Settlement of criminal acts of corruption related to state financial losses is currently carried out through a criminal justice system that prioritizes a retributive justice approach so that it does not achieve the goal of punishment, namely not optimal returns on state financial losses, so a new settlement concept is needed. The concept of restorative justice focuses more on the settlement of criminal cases by emphasizing restoration to its original state, not retaliation. Restorative justice also fulfills the value of justice and legal benefits, but there are no regulations that specifically regulate restorative justice, especially in resolving criminal acts of corruption related to detrimental to state finances so that it does not meet the value of legal certainty. To formulate specific arrangements regarding the concept of restorative justice in resolving criminal acts of corruption related to losses to state finances.

Keywords: Restorative Justice, State Financial Losses, Purpose of Criminalization.



The Mediation Regulation of Dispute Commercial Settlement in Indonesia and Malaysia from Legal Certainty and Justice Prospective (The comparative between Indonesia and Malaysia)

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ABSTRACT

The purpose of this study is to view and analyze the mediation regulations for commercial dispute resolution in Indonesia and Malaysia from the perspective of legal certainty, analyze and assess the settlement of commercial disputes in Indonesia and Malaysia from the perspective of justice, see and analyze the concept of settlement mediation regulations having legal certainty and justice. The problems to be examined in this research are: (1) whether the regulation of mediation for commercial dispute resolution in Indonesia and Malaysia has legal certainty, (2) whether the regulation of mediation for commercial dispute resolution in Indonesia and Malaysia has fulfilled the sense of justice, (3) how the concept future commercial dispute settlement mediation regulations in Indonesia from the perspective of legal certainty and justice. The research method used in this research is normative juridical by examining. interpreting and explaining all conceptual materials with the conceptual approach (conceptual approach) of laws (statute approach), historical approach (historic approach), and comparative approach (comparative approach). The results showed that the mediation regulations for commercial dispute resolution in Indonesia are regulated in Law No. 30 of 1999 substantially has not fulfilled legal certainty and justice. Meanwhile in Malaysia, the mediation regulations for dispute resolution stipulated in the KLRCA Mediation Rules, the 2012 Mediation Law (Act 749), the Fee Scheme and the KRLCA Mediation Regulation Guidelines have met legal certainty and justice. The concept of mediation regulation for the settlement of commercial disputes in Indonesia for the future, the substance must have legal certainty and justice. Therefore, the considerations in this study are that: Law No. 30 of 1999 should be revised.

Keywords: Dispute Resolution Mediation Regulation, Legal Certainty and Justice.



Local Wisdom-based Tourism Management during the Covid Pandemic 19: A Legal Perspective

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ABSTRACT

Tourism in Indonesia is the largest contributor to foreign exchange. The development and management of tourism in Jambi considers religious, social and economic aspects as well as legal aspects. Legal aspects are not being paid attention to by tourism managers, consumers, and even the government. The Covid 19 pandemic has a major impact on the growth of the tourism business in Jambi. All aspects related to tourism in Jambi have been disturbed. This paper aims to analyze the legal protection for parties involved in the tourism management industry in Jambi. This research method is qualitative with a phenomenological approach. Of course, by considering a legal study approach based on normative juridical research. The results of the study state that the management of tourism in Jambi has not implemented how the law works in relation to legal protection for stakeholders related to the tourism business in Jambi. The constraints that occur are sociological and economic factors.

Keywords: Dispute Resolution Mediation Regulation, Legal Certainty and Justice.



Application of Proportional Integral Control (PI) on Two PG 45 DC Motors as Control Kicker Angle to Increased the Speed of Kick Rangkayo Hitam Wheels KRSBI Robot Jambi University

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ABSTRACT

Kicker was a vital component in a wheels soccer robot that functions to kicked ball. Producing a strong kick needed an actuator. It was happened in the University of Jambi robot on a football robot, the use of drive in the form of a DC motor made the movement of the kicking mechanism unstable resulting. It done not a strong kick producing as well damage to robot mechanical construction. In this study, the focus of the study was on the application of controls Proportional Integral (PI) on two DC PG 45 motors as position control (angle) of the kicker in increasing speed kick. The kicker could reach positions 45 degree, 56degree, 75 degree and 91degree with the resulting steady state error of >1 degree in position 55 degree and 90degree with average kick speeds with each position of 21,323 m/s, 43,422 m/s, 5,169 m/s and 4,032 m/s.

Keywords: KRSBI Robot, Kicking Mechanism, Proportional Integral



Effect of Organic Fertilizer Chicken on the Growth of Pepaya Plants in Palm Oil Plantation: A Case Study of Naga Sari Village, Mestong Kecamatan, Muaro Jambi District

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ABSTRACT

The use of chemical fertilizers in agriculture has caused soil degradation and is harmful to human health. Organic fertilizers made from animal waste have received worldwide attention because they are not harmful to health or the environment. This paper describes the effect of using organic fertilizers from chicken manure on the growth of papaya plants. A completely randomized design was used in this study using two factors and three repetitions, the variations of the fertilizers given were 0, 50, 100, 150, and 200 g. The results of this study informed that the use of organic chicken manure had a significant effect on the growth of oil palm and papaya plants. The best growth is oil palm and papaya plants which are given 200 g of organic fertilizer from chicken manure.

Keywords: organic fertilizers, oil palm plants, papaya plants, intercropping



Analysis of the Implementation of Reading Culture in the Partner Elementary Schools of the University of Jambi

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ABSTRACT

The ability and reading skills possessed by students are the main capital in determining the success of following the learning process. School as the main instrument in improving the quality of human resources must be able to develop these abilities and skills by implementing a reading culture in schools. The purpose of this study was to determine how the mitra Jambi elementary school implements the reading culture in schools. The formulation of the problem is how do the partner elementary schools of Jambi University implement a reading culture in schools? The research location is in the elementary school of the Jambi University partner, amounting to 6 schools. The research subjects were school principals and teachers. Data collection was carried out through observation, interviews and documentation. Data were analysed through data reduction, data display and data verification. The results showed, the implementation of reading culture in the partner elementary schools of Jambi University was generally carried out by mapping the reading abilities and skills of students, habituation activities, modelling, building cooperation, fulfilling facilities and infrastructure. The implementation of the reading culture of each school differs depending on the leadership of the school principal, the active role and concern of the teacher in implementing a reading culture and community participation (guardian students) in supporting the implementation of a reading culture in schools. The conclusion is that schools have an important role in implementing a reading culture through various ways to improve the reading abilities and skills of students.

Keywords: Implementation, reading culture, partner elementary school



Application Analysis of the Auditor's Ethical Behavior Forecasting Model in Information Asymmetry

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ABSTRACT

Human behavior has a high level of difficulty and complexity and is one of the causes of information asymmetry, especially by irresponsible public accountants and auditors. In general, the purpose of this study seeks to analyze and develop a forecasting model for auditors' behavior so that it can provide signals to interested parties regarding information asymmetry so that in the end the policies applied to the Public Accounting Firm (KAP) can be proposed. . The operational objective of this study is to determine what factors influence the auditor's behavior towards information asymmetry. Meanwhile, the functional objective of this research is that the results of the research can be utilized and used by academics as material for literature review. This study aims to determine the suitability of auditors' ethical behavior based on Ajzen's Theory of Planned Behavior in 1991, while company asymmetry will be proxied by using two indicators, namely the bid-ask spread and price impact. Based on the nature of scientific exploration, this research is applied research where the output will be directly used for practical purposes in addition to solving problems that occur in KAP with the causality model as an explanation method, while the type of data used is primary data. by distributing questionnaires to all auditors in Indonesia, especially those in Jambi Province who are registered with the OJK and IAPI as well as secondary data from ICMD which are presented descriptively. The method used in this research is quantitative descriptive method by providing facts with correct interpretations in problem solving. The results showed that the important factors of auditors' ethical behavior that can influence the act of information asymmetry are Perceived behavioral control, Attitude toward the behavior, Subjective norm, Auditor intention, Auditor behavior.

Keywords: Auditor Behavior, Information Asymmetry, Theory of Planned Behavior.



Legal Harmonization of Civil Dispute Settlement in Order to Make a Legal Unification

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ABSTRACT

The current civil dispute resolution law is very pluralistic and spreads in various laws and regulations, however, it is still maintained as a basis for examining civil cases in Indonesia. Legal pluralism can lead to conflict of norms which eventually creates legal uncertainty in the resolution of civil cases. Therefore, it is necessary to research whether the legal arrangements for resolving civil disputes in Indonesia can be harmonized in the framework of legal unification? What is the juridical, philosophical and sociological rationale for the need to harmonize civil dispute resolution laws? This research is a normative juridical research and in order to answer the formulation of the problem, it is carried out with a statutory approach, a historical approach, a conceptual approach and a comparative approach. The results of the study show that civil dispute resolution law can be harmonized to achieve legal unification. The existing civil procedural law provisions were a product of the Dutch East Indies government and could no longer accommodate the development of society, developments in science, technology and information. Then juridically, the content of legal norms or rules for resolving civil disputes currently in effect does not accommodate the development of society, philosophically, it is necessary to study the concepts and legal principles of civil dispute resolution and sociologically that the presence of new laws and regulations does not is challenged by the community, therefore harmonization of civil dispute resolution law is needed in the framework of unification of civil procedural law. Civil dispute resolution arrangements should be established in a Civil Dispute Resolution Law.

Keywords: Legal harmonization, civil disputes, legal unification.



Effectiveness of Social Security and Health Agency Complaint Services in the Perspective of Legislation in Indonesia (Case Study in Raden Mattaher Hospital, Jambi)

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ABSTRACT

To defend their rights, participants allow submit complaints about social security and health agency services. According to the law, they was obliged to establish a complaint unit. However, the arrangements was not clearly written. So that, participant convey report to the YLKI, Ombudsman, mass media, and even social media. In municipality jambi, since 2019, as much as 170 reports of complaints to the regarded hospital services such as different level room in one class treatment, patients were refused by hospital, out of pocket of laboratory expense and hospital isolation, never been informed about fines due to late payment fees, drugs were charged because unavailable stock, and there are many other complaints. Based on preeliminary survey in Raden Mattaher Hospital Jambi, as many as 79% of participants did not know how to complaint about services. Effectiveness defined by four variables such as user aspect, system quality, information quality, and services quality. Objectives: This study aim to analyzed effectiveness of social security and health agency complaint services in the perspective of legislation in Indonesia. Methodology: This was mixed method study with minimum sample size 81 respondents, and collected random. Qualitative data implicate 4 informants were selected by purposive. Results: Total 87 respondents were surveyed. 43,7% respondent age 31-45 years, and 55,2% were graduated from high school. However, 44,8% were quite agreed by system quality of complaints services, while 39,1% peoples disagreed about information quality. Furthermore, 69% were quite agreed for services quality, despite 74,7% declared complaints services quite effective. Qualitative data showed information about complaints procedure was not supported by system and accessibilty. Information quality given without further solution. Administrator willing to help but slow respons because system complaints was not integrated. In addition, complaints system by social security and health agency was not accordance by legislation. Conclusion: Complaints services was not fully effective providing solution. Integrated system should be improving regarding procedure, facility and access. In charge people who competence on system, so that be able to give accountable result.

Keywords: Effectiveness, Complaint, Hospital, Legislation, Mixed Method**Keywords**: p53, preeclampsia, apoptosis



The Use of WebQuest on Integrated Skill: Literature Review Study

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ABSTRACT

This literature review study aims to investigating the use of WebQuest that can be implemented in English integrated skill or not. As the consideration, the researcher presents the theoretical framework of WebQuest and the previous study about the implementing WebQuest from the four skills that exist in English language teaching; writing, reading, listening, and speaking. In fact that there is minority number of the researches about relationship between the used of WebQuest to the integrated skill, the researcher made this study and conclude by herself by considering some related literature. This research hopefully might be contributed to betterment of English language teaching that related to ICT scheme. In this study, the following topics that will be discussed are; the concept of WebQuest, the theoretical framework of the learning theories, the status of WebQuest in four skills; writing, reading, listening, speaking and the use of WebQuest in integrated skill based on the English language skills perspective.

Keywords: The use of WebQuest, ELT, integrated skill.



The Development of General English Books for Biology Education Study Programme at FKIP Jambi University

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ABSTRACT

Biology education curriculum includes English as compulsory subject. To respond to the urge of this curriculum, it is necessary to develop an English materials for Biology education. According to Tomlinson (1989) materials include anything which can be used to facilitate the learning of a language. The important review of relevant studies on the field of the development of general English books for Biology education study programe shows that the materials that were compile in to the form of coursebook promote several advantages as describe by Cris Mares in Tomlinson (2003), Mares said that coursebooks are designed to give cohesion to the language teaching and learning process by providing direction, support and specific language-based activities aimed at offering classroom practice for student. This study is research and development study aims to produce a particular products in the form of English course books by employing the 4D-Model. The advantages of this model it is iterative and the product could be evaluate on the basis of curriculum, students need, and learning objectives.

Keywords: materials, coursebooks



Organizing Students' Needs To Cope English Students Demotivation Factors (Literature Review)

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ABSTRACT

This literature review study aims to address the issues on students' demotivation factors in their effort to improve their English Learning ability in Jambi Province, Indonesia. In this review, the researcher presents what literatures suggested and recommended in the area of students' demotivation factors and possible learning strategies that stakeholders might hold to improve the quality of students learning English both in junior high school and senior high school in Indonesia. The relevant articles being reviewed were from Indonesian context as well as International context. The following topics are presented in order, learning english, students demotivation factors, learning strategies, conclusion and suggestion. This study hopefully can contribute to the betterment of teaching practice of English in Indonesian schools. Then, the English teachers will be more able to apply the appropriate strategies in their teaching process based on the students' needs and students can follow the lesson effectively.

Keywords: Learning English, Students Demotivation Factors and Learning Strategies



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Implementation Asas Laras on Customary Agreement in Lubuk Larangan Tradition As Local Wisdom To Preserve Rare Fish at Lubuk Beringin Vilage, Kabupaten Bungo, Jambi Provinsi, Indonesia

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ABSTRACT

Lubuk Larangan is an area in a watershed that function to maintain environmental balance and maintain rare fish species. Lubuk Larangan is managed with tradition from generation to generation. Tradition is regulated In Malay Customary Law. Indigenous people agree to protect and preserve their environment. This commitment is implemented in an agreement. The agreement is applied on the basis of the "Asas Laras", carried out in customery deliberations. The aim of research is study and analize application of the principle "Asas Laras" in the Management Lubuk Larangan at Lubuk Beringin Village, Bungo District, Jambi Province, Indonesia. The next aim is contructing the relationship between private law and public law from the perspective of customary decisions and examines the prospect of the principle of becoming a general principle in the law of the National Agreement. The research method is qualitative, with the Grunded Theory approach. Data collection with interviews, questionaires, document studies from primary and secondary legal materials, audio and video recordings. Qualitative data analysis with descriptive analytic. The result of the research is that indigenous peoples are consisten in agreements that prioritize the principle of "Asas Laras". The Customary agreement is accomadated in the "peraturan dusun" Lubuk Beringin which later becomes a National Legal Instrument in the form of local government policy. Asas laras as the basis for customary agreements is very prospective to become a principle that applies Nationally and influence the formulation of rights and obligations in the construction of contract law in Indonesia.

Keywords: Asas Laras, Contract Law, Lubuk Larangan Traditions, Malay Customary Law.



Authentic Assessment for Online Learning: A Literature Review Study

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ABSTRACT

This literature review study aims to handle the issues on English Teachers' problem during the covid 19 pandemic to develop their authentic assessment for online learning by using applications. The critique of relevant studies on the sphere of authentic assessment for online learning of English teacher reveals there are several topics associated with the competence and skills that teachers should need to better improve their teaching-learning for online school. During this review, the researchers present to explicate how to implementation and assess such competence as the standard of teachers teaching English for this pandemic or may be use for sustainable. The relevant studies were reviewed from Indonesian and Internasional studies. This study hopefully can contribute to the betterment of teaching assessment of English, during this pandemic at schools. The subsequent topics are in order; the authentic assessment, online learning in English teaching-learning, the implementation of authentic assessment in online learning, conclusion and suggestions are also presented.

Keywords: Authentic assessment, online learning, English teachers



The Sufficiency of learning online during Covid-19 pandemic in learning English at SMA N 17 Merangin

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ABSTRACT

The 2019 Coronavirus pandemic has triggered significant changes in education system World Wide and necessitated wholescale conversion of curricula to online learning environments globally. The government, through the minister of education, instructed that learning must be carried out efficiently and without having to meet face to face. Based on this instruction, educational units throughout Indonesia carry out learning with the online system as the plat form. In fact, we are forced to carry out this online learning system. Developing countries like Indonesia certainly cause many problems such as inadequate facilities, teacher motivation in teaching and students in learning. But we also do not close our eyes that there are many positive sides that can be felt during the Covid-19 pandemic with online learning systems, especially in English learning. This study focuses on the sufficiency of online learning during the Covid-19 pandemic. The research uses a qualitative method with a case study approach. Teachers are demanded to innovate in online learning both technology-based and this method which is called independent learning. Likewise their students must be required to adapt to all systems that they do not normally do. They must also be independent in learning. Of the three advantages Online learning during a pandemic will have a more positive impact if the government can further facilitate what is needed by both teachers and students during the COVID-19 Pandemic.

Keywords: Covid-19, online learning, innovation, independent of teaching and learning



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Commercialization of Research Results through License at Jambi University

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ABSTRACT

Collage are one of the centers of research activities throughout the world. The amount of research and research results that can be commercialized is not comparable. Research results must beneficial to society and technology transfer implemented by legal mechanisms. One of them is with a license. This paper describes the commercialization of research results under license at Jambi University. The aim this paper is to discribe how to reasearch result Jambi University commercialized under license, Legal aspects of research results commercialization and how licenses accommodate the commercialization of research results at Jambi University. The main obstacle is a lack of understanding of: the commercialization process, the ability to see the potential for commercialization, and the legal aspects related to commercialization. Literature study and interview method were carried out for this research. Data can be quantitative and qualitative.

Keywords: Commercialization, Intellectual Property, Licences, Research



Parents' Perception of Online Learning During The Covid-19 Pandemic: A Literature Review Study

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ABSTRACT

This literature review study explores the perception of parents of online learning during the covid-19 pandemic. In response to the covid-19 outbreak, the Indonesia government has ordered a nationwide school closure as an emergency measure to prevent spreading of the infection. Public activities are discouraged. This situation challenged the education system across the world, especially Indonesia and forced educators to shift to an online mode, now fully taking place online as schools. This process of shifting learning to online format has already become part of many educational institutions in different parts of world. A number of factors related to the quality of educational institutions, teachers, parents, and students, in conjunction with charges to their condition states are assumed to be contributing factors that may affect the quality online learning. This situation led to a rapid shift to online learning which placed more responsibility for learning on parents and guardians. Several articles that related from the topic being reviewed were from Indonesia and international articles. The aim of this study is to explore the perception of parents with regard to online learning. This study hopefully can confirm the readiness of parents to contribute with aim of advancing the quality of education and advance the quality of online learning. The following topics are presented in order; parents' perception of online learning, covid-19, conclusion and suggestion.

Keyword: Parents' Perception, online learning, covid-19 Pandemic



An Analysis On Students' Errors In Writing Recount Text (A case study at tenth grade students in SMA N 4 Sarolangun)

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ABSTRACT

This research is started when the researcher asked the teacher about the result of writing test of the students espesially the use of grammar at tenth grade students in SMA 4 Sarolangun. Most of students got low scores in writing test. The purport of this study is to know the students' errors in writing text at elevent grade students in SMA N 4 Sarolangun. This investigation will use qualitative method with case study approach. The investigator will engage interview and observation to gain the data from participants. The Reseachist is going to exert simple random sampling technique to acquire sample of the participants and the tool of collecting data is students' written test. Furthermore, Researcher will correct the test based on language feature, grammar and structure of recount text. Several articels had been read by the researcher were not only taken from national context but international context as well. As far as the researcher hopes, this case will give a contribution to know the problem of the students and be able to help increasing students' scores especially in writing skill.

Keyword: Writing, Recount text, Error Analysis.



Teacher's Perceptions In Teaching Math Through English a Literature Review Study

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ABSTRACT

This is a literature review which discussed about Teacher's perceptions in teaching English through Math. This study was conducted by taking into consideration the fact that most of people are interested in joining their children in bilingual subject. Because of that reason, the researcher doesn't only want to know about the teacher's perceptions but also her methods and her difficulties in teaching English trough Math. This study will use qualitative reasearch with literature review study approach and the researcher will gain the data by reading a number of research articles to potrait how teachers perceive the teaching english through Math (bilingual teaching). The reviewed articles were not only in Indonesian context but also international context. And the researcher hopes this study is able to help and give more contributions for learning and teaching English and for classroom practices. The following topics are teacher perceptions, teaching English, bilingual teaching and conclusion are discussed in this paper.

Keyword: Teacher Perceptions, Teaching English, English through Math: Billingual



Technology in the Classroom: Students' Perceptions by Using ICT Tools in Writing Skill at Eight Grades at SMP Negeri 2 Kota Jambi

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ABSTRACT

The literature review study will discuss about the students' perceptions of using ICT Tools (Whatsapp and Google Classroom) in online learning during this Pandemic Area. The research focuses on students' perceptions by using ICT Tools (Whatsapp, and Google Classroom) in English learning on the classroom during Pandemic Area at Eight Grades students in SMP Negeri 2 Kota Jambi. The Aim of the study is to find out advantages and disadvantages by using ICT Tools (Whatsapp, and Classroom) in English Learning on Writing skill. This Research will use Qualitative Descriptive where this research will explain the results of the study by describing this obtained the data. In this review, the Researcher will use Interview and Observation Techniques as a process for collecting the data from participants. The Important of this review to solve the problems especially about online learning systems faced by students in Pandemic Area at the same time, so that the researcher find out what causes the problem were not only in Indonesian context but also international context, and the researcher hopes this study is able to help and give more contributions for learning and teaching English.

Keyword: Students' Perception, ICT Tools (Whatsapp, and Google Classroom), Writing Skill.



Effect of Stunting on Intelligence Quotient (Iq) Of School Age Children

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ABSTRACT

Background. Based on the World Health Organization for Child Growth Standards, it is estimated that at least one in four children under five years of age fails to grow optimally according to established standards. Nutritional status on height for age under standard or Stunting is a manifestation of malnutrition and is a very serious health problem. This study aims to analyze the relationship between effect of stunting on intelligence quotient (iq) of school age children. Method. This research is a quantitative study with the design used is observational analytic with an unmatching case control. Sample consisted of 75 stunting cases and 75 control cases collected in August - October 2019 in Palembang City. The stunting variable analyze the z-score in determining the categorical nutritional status. Interviewed with responden's mother to measure environmental sanitation, history of infection, breastfeeding, economic status, and food intake, mother and father's education. The instrument for assessing student intelligence question used the CPM (Colored Progressive Matrics) test. Result. From the results of statistical show a significant relationship between stunting with Intelligence Quotient (IQ) in children (p = 0.000, OR: 4,57 (95% CI:2,1733-9,6873). There are significant relationship between environment sanitation (p = 0,04 OR: 2,245 (95% CI: 0,908-5,720), breastfeeding (p = 0.015 OR: 2.319 (95% CI: 1.11-4.857), economic status (p = 0.009 OR: 2.5(95% CI: 1,189-5,333), food intake (p = 0,005 OR: 2,82 (95% CI: 1,271-6,398) and mother's education (p = 0,006 OR: 2,5 (95% CI: 1,233-5,120) and no significant relationship between the history of infection (p = 0.841 OR: 1.181 (95% CI: 0.15-9.11), and fahter's education (p =0,633 OR: 0,853 (95% CI: 0,422 - 1,719) to the Intelligence Quotient (IQ) of school-age children. Conclusion. Children with stunting affect intelligence and have a 5.2 times lower average intelligence quotient (IQ) compared to children who are not stunting after being controlled by confounding variables environmental sanitation, history of infection, breastfeeding, economic status, and food intake, mother and father's education.

Keywords: Stunting, Intelligence Quotient, School Age Children



Effect of Manure on Infiltration and Potato Productivity on Andisols in Kerinci District Jambi Province

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ABSTRACT

Andisols are soil made from volcanic ash, generally with medium textured and high organic matter content, and are easily tilled. Tillage using a tractor in vegetable farming (especially potatoes) will accelerate the decrease in soil organic matter content, so that it can compact and reduce the soil infiltration rate. This problem can be controlled with adding organic matter. This research aims to study the effect of manure (5 and 10 tonnes per hectare) on infiltration and productivity of potatoes on land with a 6 and 19 percent of slope. The study used two demonstration plots each 800 m². Tillage using KUBOTA L3608 (mini tractor 1,115 tons) with rotary plow (2 passes). The infiltration rate was measured by a Double Ring Infiltrometer and the infiltration capacity was estimated using the Horton Equation. The result showed that rate and capacity of infiltration were 18.06 % and 21.05 % respectively and potato productivity was 9.6 % higher on a 6 percent slope plot with 5 tons of manure per hectare compared to a 19 percent slope plot with 10 tonnes per hectare of manure. This difference is more due to soil texture (loam) and the soil density on the plot with a slope of 23 percent higher than in the plot with a slope of 6 percent with silty loam texture. Sloping land requires more organic matter to control soil productivity.

Keywords: Andisols, manure, infiltration, potatoes productivity



Students' Perception and attitude of Online Learning under Covid-19 Outbreak

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ABSTRACT

This study is a literature review which discussed about the perception and attitude of students who use online learning rather than traditional learning during this pandemic. Because of this pandemic, many schools and universities must be closed in order to break the chain of spreading the corona virus. From few studies that have been reviewed, there are four major topics related to students' perception about online learning during COVID-19: the first is students' participations, the second is accessibility, the third is materials and assignments delivery and the last is e-learning platform suited with their needs and conditions. This study will also reveal students' attitude using online learning during pandemic. Relevant articles that have been reviewed are taken from the Indonesian context and also the international context. This study hopefully can be an input for lecturers and institution in running the online learning process optimally.

Keywords: Covid-19, online learning, Students' Perception, Students' Attitude



NPK Substitution With Humic Acid Could Improved Chili Growth On Dry Land

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ABSTRACT

This study was aimed at obtaining the composition of humic acid and NPK fertilizers that provides the best growth of red chili plants on dry land. The trial was conducted at the Teaching and Research Farm, Faculty of Agriculture, University of Jambi, from May 2020 through to September 2020. The experiment was arranged in a Randomized Block Design with 5 replications. Various compositions of humic acid and NPK (16:16:16) fertilizer were tested: 100% humic acid, 75% humic acid + 25% NPK, 50% humic acid + 50% NPK, 25% humic acid + 75% NPK, and 100% NPK. The humic acid and NPK were applied according recommended dosages. The results showed that the substitution of NPK fertilizer with humic acid had no effect on plant height and number of branches, but had an effect on the diameter of plant canopy. The application of 100% humic acid as well as 100% NPK produced the narrowest canopy diameter. The best canopy diameter was obtained in the composition of 50% humic acid + 50% NPK. We concluded that the use of humic acid might reduce the use of NPK chili grown on dry land, but the application of humic acid needs to be combined with NPK fertilizers.

Keywords: Capsicum annuum, vegetable crop, plant nutrition, soil fertility.



The Effectiveness of Online Learning by Using WhatsApp in Teaching and Learning Speaking

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ABSTRACT

At this time, because of the impact of Covid-19, the government has determined that teaching and learning process is carried out from home by utilizing technology. There are many applications that can be used to facilitate this learning, one of the most used applications is WhatsApp because this application is very easy to operate and can still be used even in places with weak signals. However, there are some concerns faced by students and teachers, the main concern is whether learning by using this application is effective or not, especially when teaching speaking. Whether teaching and learning process using WhatsApp can provide positive output for students or vice versa. Based on several relevant articles, this review will present several things that can alleviate those worries. Although it will not be more effective than face-to-face learning, but of course there are positive things that can be obtained from teaching and learning speaking by using WhatsApp. Every application used will have strengths and weaknesses, it depends on how we use and develop this learning. The aim of this review is to know the effectiveness of teaching and learning speaking by using WhatsApp and expected to reduce the many worries that occur so that the teaching and learning process can be continued effectively even from home.

Keyword: Effectiveness, Online Learning, WhatsApp, Speaking.



An Analysis Students' Ability Reading Comprehension by Using Recount Text in SMPN 17 Jambi

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ABSTRACT

Being successful in teaching English is the dominant factor that the English teacher should pay attention to, especially in teaching reading. Through reading, one can enhance his experience, develop new concept, solve his problem, and broaden his horizon of thinking, which are needed to ensure continuing personal growth and adopt the change in the world yet the importance of reading has not been realized by most of our society a large number of our population is classified as poor readers and the majority of the people are content to read materials of poor quality. In reading comprehension, the message to be imposed in the written form is the most important element that the students must recognize, because the primary purpose of reading is to know the thoughts expressed in the printed material. Therefore, reading wit comprehension is only a way for the students to arrive at what they want to know from the reading material. However, the problem is how to make them comprehend. For students from elementary to university level, reading is something that has to be done. They have to read their compulsory books or other materials related to their lesson. For students who are studying languages, reading is one of the skills, which has to be learned and is considered as the most important one because it can influence other language skill (listening, speaking, and writing). The researcher thinks, by using recount text the students will be more interested in reading, more motivating students. So, they can practice their ability in Reading. There were some problems that could be identified in this research, the problem of the study can be formulated as follows Does use recount text significantly affect students' ability in reading comprehension. The purpose of the research is to find out whether the use of recount text in teaching reading can improve student's reading comprehension. This research is qualitative research, that used with some or can be three meeting. The researcher used mean and average for analyzed data of this research. And besides, this research is restricted to the use of recount text as reading materials from text book in English class. The result of this research. The result of the research is expected to be useful reference for the English language teaching particularly for teaching reading students' for the English teacher for other and for the writer himself.

Keyword: Students' ability, Comprehension, Recount Text



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The Use of Outdoor Learning Method In Teaching Descriptive Text: A Literature Review

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ABSTRACT

This literature review study aims to provide information that is important for a teacher as learning managers can provide a conducive learning environment, appropriate learning approaches, new learning methods are not monotonous and can involve students actively in learning, so the students not only receive knowledge from what they hear but also from what they see and what they did and was able to solve the problems they faced. In this study the researcher present one of the methods that can be applied in teaching and learning process. Outdoor learning method is an attempt to direct students to carry out activities that can lead them to observe their surroundings, according to the material being taught. Thus, outdoor learning refers more to experience and environmental education which greatly affect student intelligence. The researcher hopes that this study can be used as a reference for a teacher to be able to choose a variety of teaching methods that are better, not monotonous and can increase student motivation and enthusiasm in learning.

Keyword: Teacher's Strategies, Outdoor Learning Method, and descriptive text



Primary Teachers' Attitude on using ICT in Teaching English: A Literature Review Study

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ABSTRACT

This literature review study explores the current problems regarding to ICT use in teaching English which focused on English teachers' attitude in primary level. This critical review describes a number of studies related to ICT use in educational field were conducted by Indonesia and international studies. The researcher also provides theoretical framework and previous studies related to teachers' attitude towards ICT. Hence, this study hopefully can gives contribution for teachers and educational stakeholders to be aware of the importance on using ICT in teaching since ICT considered as newer innovation in Educational field. This research also expected to give contribution for practitioners and government in Indonesia to increase teachers' skills on using ICT and provide adequate in service training on ICT skills. The following topics are presented in sequence; Attitude, ICT, The Importance, Benefits and Challenges of ICT, Primary English Teachers' attitude towards ICT, Conclusion and Suggestion.

Keywords: Attitude, ICT, Teaching English in Primary School



Protection Againts Biotic and Abiotic Factors in Hydroponic Celery with Simple Technique

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ABSTRACT

Currently all countries in the world are facing the Covid 19 Pandemic. So that many people's activities are carried out at home. One of the positive activities that could be done is to maintain vegetable plants, including celery. Celery is a plant that has many benefits, and is suitable to be cultivated hydroponically in the yard. One of simple hydroponic technique for cultivating celery in the yard is the wick system with using plastic bottle. However, several biotic and abiotic factors are limiting factors on the growth of hydroponic celery plants. Abiotic factors include nutrients, oxygen, water, temperature, humidity. Biotic factors include pests and diseases. So it is necessary to make efforts to overcome these obstacles. Efforts to overcome these obstacles are carried out in some stages in this research activity. This hydroponic technique use ingredients: celery seedlings, plastic bottles, opaque plastic for coating bottles, water, synthetic fertilizers (NPK, TSP, KCl, Calcium, Gandasil D), extract garlic, stove wicks, roasted rice husks, soil, cocopeat, straw. Plastic bottles are divided into two parts, where the bottom is for nutrient solution, and the top is for growing medium of celery. The observation variables are the growth of celery (number of celery stalks, length of celery stalks), pest and disease attack. The results showed that hydroponic celery plants grow well with the addition of roasted rice husks to the planting medium. Roasted rice husks contain silica so that the resistance of celery plants to pests and diseases increases. In addition, using the straw increases oxygen circulation in hydroponic nutrient solutions. Covering bottles with opaque plastic can prevent sunlight so that the nutrient solution doesn't heat up and moss doesn't grow in the nutrient solution.

Keyword: celery, hydroponic, protection, biotic and abiotic, simple technique



The Teachers' Perspective of Self-Directed Learning (SDL) On Speaking Ability at the Second Grade Students At Senior High School 2 Sarolangun

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ABSTRACT

Self-directed learning (SDL) has been an integral part of education, it is a concept in which learners are independent in their learning but they are permitted to take help and assistance from their instructors, peers, colleagues and other fellow students. Self-directed learning is a vital concept that is even brought into elementary schools and secondary schools and this concept brings out the positive aspects among the learners such as making them independent, conscientious, motivated and enthusiastic. This study aims to know the teachers' perspective of Self- Directed Learning (SDL) can improve student's speaking ability. Speaking is the most frequently used by human being as daily means of communicating to share opinions and ideas with other persons. There are several ways of improving students' speaking ability by using Self-Direct Language, like Speak with own-self by used English language, speak with friends, listening to the native speaker, listening music, watching movie and gather with the English club. From the relevant articles being reviewed, based on the teachers' perspective there is positive result of Self-Direct Learning (SDL) can improve speaking ability of student. This study hopefully the students can imply this way in their daily life in order to improve speaking ability.

Keywords: Self-Direct Learning (SDL), Speaking Ability, Teacher Perspective.



Students' Perception Toward Teaching English Speaking Through Total Physical Response (TPR) Method

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ABSTRACT

The literature review study aims to address the current issues on the students' perception on teaching English speaking through Total Physical Response (TPR) method and to find out how far the increase with using this method in speaking to students at SMP 1 Muaro Jambi. The critical review of relevant studies about students' perceptions in teaching speaking English through the TPR method that there are several topics related to the TPR technique as teaching English in speaking. In this review, the researchers present what literatures suggested and recommended that by carrying out the TPR technique as teaching English, it can help students improve vocabulary and can facilitate students' success in speaking in English. This research used a quantitative descriptive analysis research method. The respondents of the research were seven grade students of SMPN 1 Muaro Jambi. The relevant articles being reviewed were from Indonesian context as well as International context. This study hopefully can contribute about students' perceptions in using TPR method as teaching speaking English in schools and also how far the students have increased in using this method in speaking to the students. The following topics are presented in order; speaking, teaching speaking, teaching speaking through the TPR method, objectives, strengths, weaknesses of the TPR method, student perceptions, conclusions and suggestions.

Keywords: Speaking, Total Physical Response (TPR), Student Perception



The Usage of Online Learning for Teaching and Learning in Covid-19
Pandemic: A Study Conducted at Department Of Indonesian Literature at
University

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ABSTRACT

Covid 19 pandemic crises change learning mode from classroom learning to online learning mode. A quick policy had been launched by university policy maker to regulate learning delivery system. Teachers are expected to adapt quickly with the situation and switch their teaching mode from classroom learning to online learning. Policy maker expected that the online learning can be implemented fully and well. The study investigates the implementation of online learning during covid 19 at a program of Indonesian Literature, at Humanities Faculty of a selected University in Indonesia. Quantitative survey is applied to generate the study, and questionnaire is used to collect data from 177 students out of 285 students. The findings reveal that the implementation of overall online learning is at high level. While implementation of online learning in components; online learning nature, course communication, resources authenticity, time management and technical skills implementation are also high level. In other way, there are no of components implemented at very high level as expected by policy maker. The finding implicates that teachers are not prepared enough to utilize online learning for anticipating online learning policy.

Keyword: online learning effectiveness, learning design, teaching literature



Social Economic Impacts Of Unlicensed Gold Mining (PETI) In Tebo, Bungo And Sarolangun Ditrict

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ABSTRACT

Gold Mining Without Permits (PETI) is one of the livelihoods of some people in Tebo, Bungo and Sarolangun districts. The amount of profit that was obtained from this PETI activity made the community more interested in mining gold than gardening. This study aims to determine the impact of PETI activities on the socio-economic environment of the surrounding community. This research is descriptive using a qualitative approach method which is implemented in the districts of Tebo, Bungo and Sarolangun. Data collection was carried out by observation, questionnaires and interviews with informants who were determined based on purposive sampling technique. The results showed that PETI actors are male with an average age range of 20 - 50 years, the average level of education is high school graduates. Judging from the daily gold income, there are an average of 72 million if you use heavy equipment, 20 million if you only use a dompeng machine. So it can be concluded that PETI activities in the 3 districts can better change the socio-economic conditions of the community. This is indicated by the way and standards of community education from the three districts have increased, which initially before the PETI activity the average education of the plant communities was high school but after PETI activities on average many children in the three districts had a minimum of Bachelor (S1) planting.

Keyword: Socio-economic impact, PETI, PETI actors



Students' Psychological Problems towards Online Learning during COVID-19 Pandemic: A Literature Review Study

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ABSTRACT

This literature review study aims to highlight the current issues about online learning during COVID-19 pandemic which focused on psychological problems experienced by students. This critical review presents any relevant studies about the pandemic effect on the educational field which shifted the conventional learning model into online learning. The related studies approved that there are several topics related to the impact of the implementation of online learning during pandemic which include psychological problems of students. In this literature review, the researcher also provided theoretical framework of online learning and kinds of online learning. Kinds of students' psychological problems and the causes also presented to give explanation about how students' behaviors in responding to the implementation of online learning system. This study hopefully gives contribution to help finding progressive steps in providing psychological welfare and solution for students and educational stakeholders during COVID-19 pandemic. The following topics are presented in order; an overview of COVID-19 pandemic effect on education, theoretical framework of online learning and kinds of online learning. This study also includes the description of online learning impacts on students' psychological problems during COVID-19 pandemic, its causes and other related aspects in learning process, conclusion and suggestion.

Keywords: Online learning, students' psychological problems, COVID-19 pandemic



The Development of Video Tutorial for Basketball Dribbling Learning in Sport and Health Education Study Program of Universitas Jambi

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Abstract

Physical and health education is conducted as part of regular and continuous education to acquire knowledge, personality, skills, health, and physical fitness. In this Physical and health education, three domains must be achieved which are cognitive, affective, and psychomotor. From these three domains, the dominant one is psychomotor since there are a lot of subjects that are directly related to the values of motion such as the ability to move and movement skills. One of the subjects is basketball. This research is research and development. Research and development is a research method used to produce certain products and to test the effectiveness of the products. In this case, research and development was conducted to obtain a video tutorial for basketball dribbling learning in the Sport and Health Education Study program of Universitas Jambi. This research and development was conducted based on the study of the video tutorial for basketball dribbling learning in Sport and Health Education of Universitas Jambi was not specifically available. The result of the research showed that the formation of basketball dribbling learning in the Sport and Health Education Study Program of Universitas Jambi with the feasibility level based on the material expert's assessment was 90% and included in the category of very feasible, the media expert's assessment was 90% included in the category of very feasible. Last, the results of the trial results were 72% and categorized as feasible.

Keywords: Physical and Health Education, Research and Development, Video Tutorial



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Optimizing the Use English Learning Material of Reading for Junior High School Student: A Literature Review

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ABSTRACT

This literature review study aims to address the issues on English students' problem in order to develop their reading, in Jambi province, Indonesia. The critical review of relevant studies on the field of teaching English for junior high school, especially for reading skill reveals that there are several things need to be done to improve the student's reading competence. It should have better improve in teaching and learning language process by using the English reading material for junior high school. In this review, the researchers present what literatures suggested and recommended in the area of Using English reading material and possible teaching strategies hold to improve the quality of teachers teaching English in junior schools in Indonesia. The relevant articles being reviewed were from Indonesian context as well as International context. This study hopefully can contribute to the betterment of teaching practice of English in Indonesian schools. The following topics are presented in order; the effectiveness of English book and teacher's strategies in teaching. The domains and dimensions of using English material and teacher's strategies, conclusion and suggestions.

Keywords: English reading material, teacher's strategies, teaching reading for junior high school.



The Correlation Among Teachers' Teaching, Knowledge, Teachers' Certification and Students Achievement

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ABSTRACT

This literature review study aims to looking at issues on English Teachers' problems in their efforts to develop English teachers' teaching kknowledge, teachers' certification and students achievement in Jambi Province. The Achievement of students' English ability is influenced by several factors. Basically, there are various factors that affect the achievement of learning English in school, among others: teachers and students. In the world of education, the teacher is very important, because in the hands of teachers curriculum, learning resources, facilities and infrastructure into something meaningful for learners. In fact, performances' teacher can influence students in the class. So that, the quality of teachers is very important, because of its professional teacher can determine students' achievement. Meanwhile, professional qualifications refer to academic matters for instance to knowledge of subject matter and educational background. This means that the quality of the teacher is very important for the students. The good teacher is the teachers have good knowledge and have the certification for teaching. The teacher needed to know the content that they teach students and have some knowledge of practice. In addition, teachers' teaching knowledge and teachers' certification can influence student achievement in the classroom. This study hopefully can contribute for the school. It's important that the principals or administrators of schools have to facilitate all teachers' activities which contribute to development of their professionalism. The following topics will be discussed: Teachers' knowledge, Teachers' certification, students' achievement, and conclusion.

Keywords: Teachers' Knowledge, Teachers' certification, and Students' Achievement



EFL Students' Strategies to Develop Their Public Speaking Skills

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ABSTRACT

Effective oral communication skills are commonly needed by people who will present the materials in the workplace or events like student who will present the materials in international conference. The purpose of this literature review study is to identify the strategies for EFL students to develop their public speaking skills. This literature review study presents the strategies for the students or the people who will attending an event or for someone who has the duty to speak up in the public. Some articles being reviewed from Indonesian context and also International context. This data findings later will be used as resources for EFL students in developing their public speaking skills. The students will be better prepared to succeed in their further education as employees in the workforce in everywhere, maybe in the office, school, or as the speaker in some events with increased self-confidence and strengthened public speaking skills. EFL students should be trained to be more aware of their own public speaking skills like how they use appropriate language and other factors that influence their public speaking skills. The following topics are; EFL students; the strategies of the students to develop their public speaking skills, ways to reduce the fear and anxiety associated with public speaking; conclusion and suggestions.

Keywords: EFL students, students' strategies, public speaking.



Factor Influencing Student's Difficulties in Speaking Skill an English Language: a case study at tenth grade students in MA NURURODHIYA Kota Jambi

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ABSTRACT

Language is one of the most important things in communication and it is used as a bridge of communication among people. According to (Manurun and Izzar, 2019). In Indonesia studying English as foreign language is fundamental for the necessity presented in this globalized world since science and technology are the world culture and the means to acquire and keep up with the development of science and technology. Speaking English tends to be the most important skills of all the four skills because people who know a language are usually referred to as speakers of that language. Speaking is one of the important skills that students should master. in order that they are able to deliver their ideas. To master the skill, the students certainly should have much practice, should be self-confident, not be nervous, no be anxious, must be brave, enjoy speaking. In reality, many students are too anxious and do not enjoy learning speaking. This research present what the factor influencing students' difficulties in speaking English and what causes student's difficulties in speaking English language at Islamic Senior High School Nururrodhiyah Kota Jambi. In this review, the researcher will use descriptive qualitative method which involves interview and observation to gain the data from participants. This review paper traces out the body of research concerning the term speaking, the importance of speak English language, speaking difficulties an English language.

Keywords: factors influencing, students' difficulties, speaking skill.



The Effect of Service Quality Application Based of Capsule Trans Bus Jambi City on Customer Loyalty through Customer Satisfaction as an Intervening Variable

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ABSTRACT

Digitalization in the transportation sector is a necessity. At the same time, several cities in Indonesia have already carried the concept of smart city. Jambi city government which launced the Kota Trans Capsule Bus, the first application based bus in Indonesia. The presence of the capsule bus is an innovation in public transportation with comfortable, modern, high technology and certainly supports Jambi as a smart city in Indonesia. The purpose of this study was to examine and analyze the effect of service quality application based of Capsule Trans City Bus on customer loyalty through customer satisfaction as an intervening variable. The analysis test tool used is SmartPLS v.3.3.0 and use the SEM (Structural Equation Model) analysis method. The results showed that the coefficient of indirect paths through the variable (I) customer satisfaction has a vue of 0.662 is greater than the path coefficient is 0.075. this means that the service quality of application based trans Jambi City Capsule Bus affect on customer loyalty but non diretly, namely through the intervening variable customer satisfaction. It means that customer satisfaction mediates between the influence of service quality on customer loyalty.

Keywords: Service Quality; Customer Satisfaction; Customer Loyalty; Application based capsule trans bus Jambi City.



The Implementation of Video To Improve Students Vocabulary In Primary School

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ABSTRACT

This literature review study aims to see the impact of video to improve students vocabulary in primary school, in Jambi Province, Indonesia. The critical review of relevant studies on the field of teaching english for Primary School, especially in vocabulary. It should have better improve in teaching and learning english process through video for primary school. In this review, the researcher presents what literatures suggested and recomended in the area of using video and possible teaching strategies hold to improve the quality of teachers in teaching English in primary school. The relevant articles being reviewed were from Indonesian context as well as International context. This study hopefully can contribute to the betterment of teaching practice of English in Indonesian school. The following topics are presented in order to improve students vocabulary in prymary school through video. The domains and dimensions of English teachers' competence, teachers' training, and conclusion and suggestions.

Keywords: Teaching English for Elementary School, young learner and learning vocabulary through video



E-Service Quality Online Shop Model and ITS Effects on Online Shop E-Loyalty Consumers in Jambi City Through E-Trust Moderating Variables

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ABSTRACT

The large market share for online businesses encourages business people to be serious in providing services to consumers. With the ease of buying goods from anywhere and anytime using the Internet media, consumers can save time and costs that are usually used to shop at the store. However, in the absence of physical instruments and face-to-face interactions between sellers and buyers, it requires companies to be able to prove that they are worthy of being a choice for consumers who want to buy a product, namely by further improving the quality of its service (Ristina Dian, 2013). This type of research is evaluative research, with analytical tools using PLS (Partial Least Square) with a total sample of 170 people and the method used for data collection is purposive sampling. The results obtained are that there is a significant influence between the quality of service electronically on the loyalty of consumers who shop online, both directly and through trust intermediary variables. Consumer loyalty is also formed by consumer trust in online shopping service providers. but e-trust does not strengthen e-service in forming consumer e-loyalty

Keywords: e-commerce, e-servqual, e-trust, e-loyalty



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Symbolic Violence in English Textbook: Literature Review Study

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ABSTRACT

Many cases of symbolic violence happen in education both in the classroom and on the textbook, orally or written. This literature review study aims at interpreting the symbolic violence that occurs in English textbooks at the high school level Critical studies relevant to symbolic violence in Buku Sekolah Elektronik at the primary school level, state that sentences and pictures in Buku Sekolah Elektronik contain upper class domination. And the lower class is depicted in the form of lower class characters, lower class professions and lower class activities. The research reveals many aspects and objects of study that are similar in textbooks of different levels. In this study, there was symbolic violence in Indonesian textbooks. The books analyzed in this study are Buku Sekolah Elektronik from grades 1-6. The relevant studies reviewed by the researchers originated from the Indonesian context. The following topics will be displayed in order; symbolic violence, mechanisms of symbolic violence in textbooks, reconstructive understanding of the text, conclusions and suggestions.

Keywords: symbolic violence, English textbooks



Functional Study of ELMO-1 Genetic Variant in Diabetes Mellitus Type II and Diabetic Nephropathy

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ABSTRACT

Introduction Engulfment and Cell Motility (ELMO-1) genetic variation was strong candidate of genetic risk for diabetic nephropathy (DN). Several previous study reported genetic variation in intron of ELMO-1 gene as DN risk factor but the study reported genetic variation in promoter of this gene still limited. Genetic variation in promoter of gene promises as diseases risk factor, that may correlate with the functional of genetic variant, whereas difference genotype has difference protein level. Aims This study was functional genetic variant study which revealed functional of three ELMO-1 genetic variation in promoter. The difference of protein ELMO-1 protein level between genotype was investigated. Methods Study design was cross sectional. Totally 74 patients with DM type II which full filled study criteria was participated, as much 43 patients have DN. We investigated 3 genetic variation in ELMO-1 promoter with Sanger sequencing. The genetic variants were ELMO-1 rs1882071 G/T, rs13242914 C/T, rs13242348 A/G. Blood ELMO-1 was measure with Enzyme-linked Immunosorbent Assay (ELISA). Result Subject who suffered DM type II with GG genotype of rs1882071 has higher mean ELMO-1 blood level than GT and TT genotype (p value 0.735). Subject with TT genotype of rs13242914 has higher mean ELMO-1 blood level than CT and CC genotype (p value 0.511). Subject with GG genotype of rs13242348 has higher mean ELMO-1 blood level than AG and AA genotype (p value 0.634). Similar trends also shown in subject who suffered diabetic nephropathy as renal complication of DM type II with p value (0.846; 0.230; 0.847) respectively for rs1882071 G/T, rs13242914 C/T, rs13242348 A/G. Conclusion Blood protein ELMO-1 level was difference between genotype in subject who suffered DM type II or with DN complication. None of them was statistically significant, it may cause by other genetic variation or other factor that may influence blood ELMO-1 level.

Keywords: ELMO-1, genetic variant, diabetes mellitus, diabetic nephropathy



The Tenth Grade Students's Problems in Using Simple Sentences in Writing Recount Text at SMKN 1 Merangin

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ABSTRACT

This literature review study aims to find the students' ability in using simple sentences in writing recount text, the possible problems of students in writing recount text, and the factors causing students' problem in writing. The relevant articles being reviewed were from Indonesian context as well as International context. This study hopefully can contribute to the betterment of learning practice of English in Indonesian schools and can improve the academic achievements of English language learners as well as making task of impacting knowledge an easy one for the teachers also. The following topics are presented in order; writing, simple sentences, lexicogrammatical features of recount text, simple sentences, and conclusion.

Keyword: simple sentences, lexicogrammatical features, recount text



The Effect of Intermitent Fasting (Time Restriction Feeding) on Body Weight, Aspartate Transaminase and Alkaline Transaminase in Sprague Dawley Rats

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ABSTRACT

Background Time Restriction Feeding is one of intermittent fasting diets pattern for 16-20 hours and 4 hours fasting periode of diet ad libitum every day. Intermittent fasting diet can reduce weight, risk of metabolic disease, and reduce insulin resistance. However, no studies on long-term effects from intermittent fasting diet. Aim of this study is to determine the effect of an intermittent fasting diet on body weight and liver transaminase enzymes. Method This is an animal experimental study with post test only group design, performed at the Animal House, Faculty of Medicine and Health Sciences, Universitas Jambi and Jambi Regional Health Laboratory. Twenty normal male rats (Rattus norvegicus) Sprague Dawley strain aged 2-3 months included in this study, divided into two groups; control group (n=10) were given ad libitum feeding and intermittent fasting group (n=10) were given fasting diet periode for 16-20 hours and 4 hours on ad libitum feeding every day for one month. Body weight were measured every three days, while aspartate transaminase and alkaline transaminase were measured after treatment. Results Time Restriction Feeding can reduce body weight pretreatment=236.43, mean posttreatment=134.61). Asparate transaminase level increased in time restriction feeding (129 \pm 528) compared to control (122 \pm 211), mann-whithey test showed p<0.05. The mean value of asparate transaminase level at time restriction feeding was 293 (CI 177.83-408.16). Alkaline transaminase level also increased in time restriction feeding (58 ± 286) compared to controls (49 ± 79) . The mean value of alkaline transaminase level at time restriction feeding was 144 (CI 60.53-167.46). Conclusion Time Restriction Feeding reduce body weight but increase aspartate transaminase and alkaline transaminase level.

Keywords: body weight, intermittent fasting, time restriction.



Utilization of Oil Palm Fabric Waste as Compost to Porang (Amorphophallus mulleri) Cultivation

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ABSTRACT

Porang is classified as tubers, farmers in Jambi usually plant porang among old rubber plants and without fertilizing. This causes tuber production below its potential. Porang is planted without treatment, as a result the tubers reduce the size. However, without proper fertilization, the konjac glucomannan content in tubers is low. Porang tubers are usually made into chips, and chips will crumble easily if the konjac glucomannan is low. This results in a low selling value. However, to increase the yield by fertilizing, the farmers are unable and resigned to the existing conditions. Based on this, the activities of counseling and mentoring will be focused on making fertilizer from the waste around the farmers. There are two palm oil mills around the Rambahan village. Palm oil mill waste that is most easily transported and easily decomposed is the cake decanter (DC). In the village of Rambahan it is known as a solid decanter. The villagers have heard but do not yet know that this waste with certain treatments can be used as organic fertilizer. The treatment by fermentation with local microoraganism (MOL) from cow urine mixed with MOL from snails (RINMAS), the two MOLs are mixed with a ratio of 1: 1 and used as a decomposer to ferment the decanter cake plus for 2 months. After two months it can be used as organic fertilizer for porang plants. The technology application activities carried out in Rambahan Village at the Mekar Kembali KT and KWT Pokja Alamanda. The two partner groups make Urine MOL and Keongmas MOL, then the two MOL will be mixed and used as a decomposer to the cake decanter. The fermented decanter cake is used as fertilizer in the porang DEMPLOT.

Keywords: Dekanter solid; yards; porang; MOL; fertilizers; organic material



Back Arc Basin Volcanism and Geothermal Features on the Sabak-Geragai, Tanjabtim, Jambi, Indonesia

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ABSTRACT

Jambi Sub-basin is special characterized of the oil and gas resource and producer in Sumatra, Indonesia and their part of South Sumatra Basin. The presence of basaltic lava on the Sabak (Jambi Sub-basin), Tanjabtim is guidance of back arc basin volcanism. The appearance of Geragai geothermal features is the Northwestern part of back arc basin volcanism Sabak as hint the connection both of them. Geological investigation is important for understanding the possibility between of back arc volcanism and geothermal features. Geological methods inverstaigation is consist of geological outcrop data, measurement of geothermal manifestation, and mineral composition analyzed. Geological survey to show of Geragai geothermal features is composed of hot spring with temperature about 45°C - 60°C, pH neutral, bicarbonate fluid, claystone Kasai Formation and swamp sediment. Bicarbonate fluid is the indication high influence of meteoric water and mixing processes of the interaction fluid geothermal with wall rock and thickness of water table. The existence of shear fault system to back arc basin volcanism the continue to geothermal hot spring manifestation. The shear fault system is Nortwestern-Southeastern and Northeastern-Southwestern. The fault system Northwestern-Southeastern is directly continue to appearance geothermal features manifestation. It is assured is facility of pathway the geothermal features on the surface manifestation. Geothermal system on Geragai have spatial connection to back arc basin volcanism on Sabak, meanwhile, and the convinced heat tranfer dormant volcanism of back arc basin volcanism to gothermal feature manifestation Geragai pass through shear fault system.

Keyword: Back Arc basin Volcanism, Fault System, Geothermal Features, Geragai, Sabak



The Role of Sumatran Fault Zone of Dikit Fault Segment to Appearance of Geothermal Features on the Grao Sakti, Jambi, Indonesia

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ABSTRACT

Geothermal features manifestation is appear on the Grao Sakti, Renah Kemumu, Merangin Regency, Jambi Province and their associated of Sumatran Fault Zone and Barisan Range Zone. It is very important to understanding connection both of geothermal manifestation and fault zone of the Dikit Fault Segment (DFS). Geological survey is early study for understanding geothermal features manifestation. It is consist of geological mapping, measurement of geothermal manifestation, and the information physical characterized of geothermal features manifestation. Geothermal features of the Grao Sakti is composed of geyser with temperature about 76°C - 94 °C, hot spring with temperature between of 52°C - 62°C, steaming ground, and hydrothermal alteration. The appearance of the geothermal manifestation is linkage to DFS and their part of Sumatran Fault Zone. The existence of geothermal features is assured controlled by DFS which is orientation of NorthNorthwest-SoutSoutheast and similarly Sumatra Island orientation. DFS is role as channelway of reservoir rock geothermal in the direction to the surface geothermal manifestation the formed of outflow zone on the Grao Sakti. DFS is dextral fault system which is narrow graben about 8 - 15 m, composed of hydrothermal alteration of andesitic lava and volcanic breccia of Hulusimpang Formation. The graben structure is consequence of DFS dextral fault system, where linkage to en-echelon truncation as the result extentional regime inside DFS system. These is formed of depression zone and their related of pull apart basin. DFS is channelway the appearance geothermal features manifestation on the Grao Sakti and the role significant of geothermal system.

Keyword: Dikit Fault Segmen, Geothermal Feature, Grao Sakti, Fault System



Growth and Yield of Edamame as Affected by Doses of Decanter Cake and Fermented Fertilizer of Cow Urine

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ABSTRACT

Decanter cake (DC) is a is one of the oil palm mill solid waste that contains nutrient elements especially high Nitrogen level but low in other elements. Using it as organic fertilizer to substitute chemical fertilizer not sufficient for vegetative growth and yield. The addition of nutrients from organic materials that are easily absorbed, especially fermented liquid fertilizer (FLF) from cow's liquid waste (urine) is the potential to be used. This research was conducted at soybean centers at Ultisol to evaluate the combination of DC and FLF of cow urine to achieved high growth and edamame yield. This research used a Randomized Complete Block Design. The observed variables are the number of branches, leaves, pods, filled pods per plant and fresh pod weight, and yield per unit area. Data were processed using analysis of variance and DMRT. The result showed that the highest number of branches and leaves per plant was achieved at DC dose 20 tons ha-1 without FLF.

Keywords: CPO; Mill; urine; MOL; local microorganism



Arduino Uno-Based Batik Wastewater Turbidity Measurement in Electrocoagulation Reactor

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ABSTRACT

An arduino uno-based measurement system for the turbidity level of batik wastewater using the turbidity sensor has been designed. The design of this measurement system devided into hardware and software parts. The hardware part consists of a turbidity sensor, an arudino uno microcontroller, and a LCD monitor. Meanwhile, the software part uses the Arduino IDE program. This designed device can take real time measurements and the results are displayed in the LCD monitor digitally, then the data is stored in the database. The validation of this monitoring system design was carried out using a linear regression equation. Turbidity value measurement results of batik wastewater then compared with a standard turbidity measurement instrument. Based on the analysis, the device show good performance with the average accuracy is 91.56%.

Keywords: arduino uno, batik wastewater, measurement system, turbidity



The Analysis Determinants of Indonesian Foreign Trade with Two Countries Involved in Trade War (United State of America vs China)

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ABSTRACT

The purpose of this study is to analyze the comparison of Indonesia's exports and imports to the United States and China, and to analyze how the effect of exchange rates, labor and population on Indonesia's imports from China and the United States. The results show the average comparison of Indonesia's exports to the United States and Indonesia's exports to China is 2.02 while the average comparison of Indonesia's imports from the United States and Indonesian imports from China is 1.31, so the conclusion, the average of Indonesia's exports and imports with the United States is greater than Indonesia's exports and imports with China. Based on the regression results, the exchange rate variable has a negative and significant effect on Indonesia's exports and China, the labor variable does not have a significant effect on Indonesia's exports to the United States and China but has a significant positive effect on Indonesia's imports from the United States and China, while the population variable has a significant positive effect on Indonesia's exports to the United States and China and Indonesia's exports and imports with China.

Keywords: Export-import, exchange rate, labor, population



Identification of Potential Seed Disperser in Peat Swamp Forest in the Context of Natural Regeneration and Post-Fire Peatland Restoration

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ABSTRACT

Tahura Orang Kayo Hitam is one of the locations that was severely damaged due to forest fires that occurred in the peat area of Jambi Province. The fires that occur repeatedly have resulted in inadequate efforts to restore the area. Natural regeneration is a possible option in restoration activities that are cheap, easy and sustainable. Natural regeneration requires the presence of a mother tree and seed dispersing agents that capable of spreading tree seeds across the forest. This study aims to identify the seed dispersing agents of various tree species in the Orang Kayo HitamTahura and has been carried out for 3 months from June to August 2020. These tree species were obtained by a sampling method with a plot size of 20x20 m determined by a 500 m long transect from outside the forest to inside the forest. One transect consists of 6 plots and a total of 3 lines so that the total observation plots are 18 plots. All trees with a diameter above 10 cm were measured and their species identified. Seed dispersing agents were identified by literature study, photo analysis and discussion with local identifiers who accompanied them to the research location. The results of field data analysis at an early stage indicated that the species found in the study area were spread by wind and wildlife. From the 32 tree species were found, 10 species (31.25%) were spread by the wind and 21 species (68.75%) were spread by wild animals such as birds, bats and primates. The preliminary conclusion of this study is that wind and wildlife are very important in the distribution of tree seeds in burned areas. In addition, the high number of species spread by wildlife shows the importance of preserving wildlife in the ecosystem to support better forest regeneration.

Keywords: natural regeneration, peat swamp forest, restoration, seed disperser



Gasing Games and Students Interest in Learning

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ABSTRACT

Traditional games have an appeal for students to learn. The researcher explored the fourth grade curriculum theme 7 sub-theme 2 by using the top game. The purpose of this study was to determine the integration of the topping game in the fourth grade of SD Negeri 13/1 Muara Bulian and see the students' interest in learning. Obtaining data in this research use qualitative methods with ethnographic research type with data generated through interviews, observation and documentation. This research was conducted at SD 13/1 Muara Bulian. These findings reveal that the topping game can be used and integrated in the fourth grade learning theme 7 sub theme two on the material of friction and muscle force. Another finding is that the top game can increase student interest in learning.

Keywords: Learning; Interest; Traditional Games



Gender and Teacher Social Competence

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ABSTRACT

The purpose of this study was to determine the social competence of teachers based on gender. Social competence is the teacher's ability to communicate and interact with students, fellow teachers, education staff, parents/guardians of students, and the community. This research was completed using a mixed-method, explanatory research design. The sample of this study consisted of 83 elementary school teachers. The results show that the male teacher's social competence is in a good category. The female teacher's social competence is in a good category. The results of the independent sample t-test showed that males and females did not show insignificant differences (t (2; 80) = 0.233, p> 0.05). The novelty of this research is that gender does not affect teachers' social competence.

Keyword: Gender, Elementary Teacher, Social Competence



The Relationship Between Attitudes and Awareness of Physics Education Students in Doing Assignments

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ABSTRACT

In facing the current pandemic, lecturers are required to conduct distance learning or online learning for their students. Students also need to have a good attitude and awareness in doing the assignments given by the lecturer. The purpose of this study was to see whether the attitudes and awareness of physics education students in doing assignments had a relationship. This research is a descriptive quantitative study with correlational design. The research participants were 137 physics education students who took basic statistics course. The instrument used for data collection in this study was a questionnaire of student attitudes and awareness in doing assignments. Data were analyzed using descriptive statistics, including mean, min, max, category, and inferential statistics using product-moment correlation. This study found that in general, the attitude and awareness of students in doing assignments were good. These two factors have a significant relationship, as indicated by the sig value below 0.05 and the r-value of 0.79. This research has implications for lecturers who teach basic statistics courses; by knowing the attitudes of the students, the lecturers will be able to prepare good learning strategies in the future.

Keywords: Covid-19; Students' Attitudes; Students' Awareness; Online Learning



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Students Perceptions of Web-Based E-Assessment in Basic Physics Practicum II

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ABSTRACT

This study aims to determine students' perceptions of the application of e-assessment in the form of an instrument for assessing mastery of web-based science process skills in Basic Physics II practicum. This study used a mixed method explanatory design method with quantitative data analyzed using descriptive statistics. Data were collected using perception questionnaires and interviews. The results of data analysis showed that students 'perceptions were categorized as good with a percentage of 55% and the use of e-assessment in assessing students' science process skills provided convenience and was very helpful.

Keywords: E-Assessment; Perception; Physics Practicum



Students' Creative Thinking and Science Process Skills

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ABSTRACT

The purpose of this study was to determine the relationship between creative thinking and students' science process skills. In realizing this research, researchers used a mixed method. The design used in this research is the explanatory research design. Researchers used stratified random sampling, with 83 students. The results of this study indicate that the average student's creative thinking is in a good category. Students' science process skills are also in the good category. From the results of correlational creative thinking and students' science process skills were positively correlated. The biggest correlation occurred in elaboration and student analysis (r = 0.877, p < 0.001). The novelty in this study that there is a positive correlation between students' creative thinking and science process skills.

Keywords: creative thinking, science process skills, students



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Entrepreneurial Knowledge and Student Entrepreneurial Intentions

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ABSTRACT

The purpose of this research is to better understand the role of Entrepreneurial Knowledge (EK) among students, and to determine whether Entrepreneurial Knowledge (EK) as part of Entrepreneurial Education (EE) has a direct effect on improving the construct of the theory of planning behavior (TPB); Attitude to the behavior (ATB), Subjective Norm (SN), Perceived Behavioral Control (PBC) and Entrepreneurial Intention (EI) Students. This research is adopted in inferential research designs. This is a survey cross-sectional study as the data in this study is collected at one point in time from a sample of 1,351 students. This study reveals that entrepreneurial knowledge is a predictor of TPB (ATB, SN, and PBC) and EI. Besides, SN has no direct effect on increasing student EI to become entrepreneurs. These findings suggest that to improve EI, EK should emphasize the development of students' attitudes, psychological and social entrepreneurial skills especially concerning the emotional dimension and critical thinking. The development of knowledge, skills, good hard skills, and soft skills must be EE's main concern. Originality/value - This study contributes to the literature on EE and provides strategic recommendations for university leaders and lecturers in Entrepreneurship courses.

Keywords: Entrepreneurial Knowledge (EK), Entrepreneurial Education (EE), Attitude toward the behavior (ATB), Subjective Norm (SN), Perceived Behavioral Control (PBC), and Entrepreneurial Intention (EI).



Desain development model based on Intercultural Communicative Competence Global Competitiveness in Universities

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ABSTRACT

Purpuse of This study to develop a model of intercultural communicative competence based on global competitiveness in tertiary institutions. Cross-country academic activities, especially ASEAN countries, which are marked by cooperation in student internship exchange programs, field experience practice (PPL) programs, and other exchange programs require universities to be ready to provide sufficient knowledge for students to face international cooperation. This study adopted the Mixed Method research design and for qualitative interviewing 16 participants and giving questionnaires to 78 Asean PPL students and this study used a structural equation modeling (PLS-SEM) design to analyze quantitative data. This study reveals that the factors that influence the cross-cultural competence of ASean students include Inructional Strategies (IS), Teacher attitude toward student learning (TAtoSL), Stereotypes (Streo), Organizational cultural competence (OCC) and Teacher expectations (TX), shows that there are four aspects that arise between in designing a cross-cultural competency model, including religious sensitivity, differentiation of content subjects, language barriers, and school climate. Contribute to the literature for universities on cross-cultural competency models especially for exchange students in the future, the implication is that prospective teachers have a new perspective in educating students from various cultural sides that lead them to become global teachers

Keywords: Intercultural Communicative Competence, Teaching Practicum, partial least square – sequential equation modelling (PLS-SEM)



The 3^{rd} Green Development International Conference October 2^{nd} - 3^{rd} , 2020 Universitas Jambi

Analysis of Structural Equation Modeling (SEM) and Partial Least Square (PLS) Factors Affecting Technology Integration of High School English Teachers in Jambi City

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ABSTRACT

This research aims to provide a diverse understanding of teachers' TPACK (Technology, Pedagogical, and Content Knowledge) and how TPACK is reflected in practice, this study examines the conceptions of teacher educators (TE) about technology integration. Specifically, the main objective of this study is to investigate the factors affecting English teachers in Jambi City in integrating technology. This study adopts an inferential research design. This research is a cross-sectional survey research because the data in this study were collected at one point in time from a sample of 360 English teachers in Jambi City, and this study uses structural equation modeling (PLS-SEM) to analyze data. This study reveals that Device ownership (DO) affects Perceived Technological Knowledge (PTK) and does not affect Teacher Knowledge (Excluding Technology) (TK), (ATB, SN and PBC), ICT Pedagogical Practices (IPP) Affects Technology Integration (IT) and Does not affect Teachers Knowledge (TK), Perceived Knowledge for Integrating technology (PKforIT) Affects ICT Pedagogical Practices (IPP) and Technology Integration (TI) and Perceived Technological Knowledge (PTK) and affects Technology Integration (TK), Teachers Knowledge (TK) affects Technology Integration (TI) and (TI) affects Motivation (MOV) and (MOV) affects Work Engagement (WE) and institution sopport for ICT (ISforICT) does not affect Technology Integration. These findings indicate that, to integrate, you must pay attention to teachers' understanding of technology, knowledge and support from institutions, then teacher job satisfaction is influenced by the work motivation of English teachers. contribute to literature on technology integration for English teachers in the city of Jambi and provide strategic recommendations for institutional leaders both schools and education offices

Keywords: Integration tecnologi, Institution Support, Work Engagement partial least square – sequential equation modelling (PLS-SEM)



The Difference of Long Chain Polyunsaturated Fatty Acid Profiling in Non Preeclamptic and Preeclamptic Woman; Preliminary Study

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ABSTRACT

Background Preeclampsia (PE) is pregnancy syndrome which pathophysiology related to abnormality of placentation angiogenesis, increased stress oxidative and altered inflammation response. Long chain polyunsaturated fatty acid (LCPUFA) is active metabolic which play role in that process. The LCPUFA especially $\omega 3$ and $\omega 6$ and its derivate product have contrary role. Previous study reported difference of total LCPUFA level in PE woman but the result was difference between study population. It may cause by difference dietary pattern and genetic that influence denovo synthesis. To the best of our knowledge no profiling data of LCPUFA have been studied in our population. Aims of this study was to revealed the difference of LCPUFA profiling between non-PE and PE woman in Jambi Malay population. Methods a cross sectional study involving 34 pregnant women (14 women was PE and 20 women was non- PE/normotensive) who fulfilled eligible research criteria. Serum maternal LCPUFA profiling was measured with gas chromatography-mass spectrometry methods (GC-MS). Results profiling of ω3 LCPUFA reported lower maternal serum of ALA, DHA, total ω3, ω3 index in PE women than normotensive. Contrary with it profiling of LCPUFA ω6 reported higher maternal serum of GLA, DGLA, AA and total LCPUFA ω6 in PE women than normotensive. Higher Omega 6/3 ratio, AA/EPA ratio and AA/DHA ratio was found in PE women than normotensive. We reported AA/DHA ratio statistically significant (p>0.05). Conclusion we reported the difference of maternal LCPUFA in non-PE than PE. Trends of lower ω3 and higher ω6, and its ratio in PE may reflect the contrary role of these LCPUFA. Other variables are currently not statistically significant, possibly because the research is still ongoing and waiting for all samples to be complete and reprocessed.

Keyword: KRSBI Robot, Kicking Mechanism, Proportional Integrall



The Perception of Jambi Community about The Impact of Covid-19 and Efforts to Overcome it

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ABSTRACT

The Covid-19 pandemic has created a multidimensional crisis for our lives, starting from economic issues, education and social relations with other people. These various problems also have an impact on the psychological problems we experience due to the corona virus, resulting on the emergence of public's perceptions about the impacts of the virus and the efforts to overcome it in the daily life. This study aims to discover the perceptions of Jambi community about the impact of covid-19 and efforts to overcome it. This research used an open survey method by preparing various questions along with the experts. The data analysis of this study used the analytical content of the open survey, categorization, and percentage data tabulation. The number of respondents involved was 564, consisting of the general public, medical personnel, and pregnant women. The results showed that the economic impact of the Jambi community was reduced income, disrupted work, losses to the company, the decline in the community's economy, cost problems in daily life. As for the impact in the world of education and social activities, namely disruption of learning and social activities, increased crime rates, unpreparedness to study online, unhappiness to hold religious holidays and national holidays. The impact of Covid-19 is also felt psychologically, namely anxiety, stress, fear, feelings of pressure, and panic. In addition, there are also negative impacts due to covid-19 posts on social media, including hoax information, psychological disturbances in the community when accessing news about Covid-19 such as causing chaos and noise, weakened body immunity, differences in perceptions and opinions of the community, disturbing peace, and information overload. Various efforts have been made to overcome the novel coronavirus with medical teams and psychological services, and the role of the government in minimizing anxiety and fear due to Covid-19. The conclusion of this study is that there is an impact of covid 19 on the Jambi community, and the existence of community perceptions in an effort to overcome this impact.

Keywords: Perception, the Impact of Covid-19, Jambi.



Identification of Apoptosis Marker In Preeclampsia: A Pre-Eliminary Study of P53 Gene Expression In Human Placenta

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Abstract

Background Preeclampsia still becomes a major cause of maternal and perinatal mortality. One of important focus on pathogenesis of preeclampsia is the placenta. An excessive apoptosis can induce failure of trophoblast cells to perform remodeling on spiral arteries. Abnormal remodeling activity may cause uteroplacental ischemia and endothelial cells damage, this induce clinical manifestations of preeclampsia. p53 is one of gene that plays a role as a cells apoptosis regulator (as pro-apoptosis). This gene would activate cascade apoptotic pathway that resulting in cell death processes. Aim of this study to identify differences of p53 gene expression between preeclampsia and normal pregnancies. Method This is a case control study, performed in Biomolecular Laboratory Faculty of Medicine and Health science Universitas Jambi. Human placenta from patients with preeclampsia (n=25) and normal pregnancies as control (n=25) were collected from several hospitals in Jambi City from June 2020 to August 2020. Expression of p53 was assayed by quantitative real time PCR (qRT-PCR). Result Gene expression of p53 was significantly increased in pregnancies with preeclampsia (1.91 ± 5.90) compared to normal pregnancies group (4.85 ± 3.04) (t-test; p< 0.032). Expression of p53 has relatively increased by 7 fold for relative quantification by normalized with the internal control target gene GAPDH. Conclusion Expression of p53 gene in preeclampsia is higher than normal pregnancies and There was significant difference between two groups in p53 gene expression.

Keywords: p53, preeclampsia, apoptosis



Analysis of Customer Behavioral Intention to Use Islamic Bank Savings Products in Jambi Using the Decomposed Theory of Planned Behavior Model Approach

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ABSTRACT

The purpose of this research was to empirically prove the Decomposed Theory of Planned Behavior (DPTB) model with see the relationship between the indicators in the Decomposed Theory of Planned Behavior (DPTB) model on customer behavior using savings products owned by Islamic banking in Indonesia. This research was also expected to be the basis for the management of Islamic banks, OJK and related parties that attitudes, subjective norms and perceived customer behavioral control are factors that can influence customer behavior in using Islamic banking savings products in Jambi. This study used primary data collected by questionnaires distributed through self-managed social media involving a sample of 270 respondents from users of Islamic banking savings products in Jambi. The sampling method was the number of 54 indicators multiplied by 5 according to the Hair Technique. The data analysis was carried out using the SEM approach. The first objective of the study was to test the theory. The analysis technique used Covariance-based SEM, namely the SEM approach using Smart PLS 3 tools. The results of this study found that for attitude only the Relative Advantage and Compatibility variables had an effect while the others did not. Normative belief had an influence on subjective Norm. Meanwhile, self-efficacy, religious and resource facilitation had an influence on perceived behavioral control. Attitude, Subjective Norm and Perceived Behavioral Control had an influence on Behavioral Intention.

Keywords: Islamic banking, Decomposed Theory of Planned Behavior (DPTB) model, SEM, savings products.



The Implication of the Human-Organization Technology (HOT) -Fit Framework on the Digitalization of Sharia Banking in Indonesia

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ABSTRACT

The purpose of this research was to be able to empirically prove the HOT-FIT framework by seeing the relationship between indicators in the "HOT-FIT (Human, Organization and Technology)" framework on the use of digitalization that Sharia banking has in Indonesia. This study used primary data collected by questionnaires distributed through Twitter and WAGS that managed by researchers involving a sample of 145 respondents from users of digitalization of Sharia banking in Indonesia. The sampling method was the number of indicators multiplied by 5 (five) according to the Hair Technique. The data analysis method was carried out using the SEM approach, because the first objective of the study was to test the theory, then the analysis technique used Covariance-based SEM (covariance based SEM), that is the SEM approach using Smart PLS 3. The results of this study found that the variable system quality has an influence on the system use and user satisfaction variables, while the information quality variable has no effect on the system use and user satisfaction variables, but the service quality variable does not have an influence on the system use variable but has an influence on the user satisfaction variable. System Use variables, User Satisfaction, Environment and Structure have an influence on the Net Benefits variable. The results of this study were expected to become the foundation for organizations, especially Sharia banking, in determining policies related to the development of a digitalized system in the future.

Keywords: HOT-FIT Model, Digitalization, Sharia Bank, Indonesia.



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Computer Vision and Deep Learning for Smart Fish Biodiversity: Applications, Opportunities, and Challenges

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ABSTRACT

The rapid emergence of deep learning technology has resulted in its successful use in various fields, including biodiversity. Deep learning creates both new opportunities and a series of challenges for information and data processing in smart fish biodiversity in the forest rivers. The technical details of deep learning methods applied to smart fish are also analyzed, including data, algorithms, and performance. The review results show that the most significant contribution of deep learning is its ability to automatically extract features. A system is described to recognize fish species by computer vision and a neural network program. The vision system measures a number of features of fish as seen by a camera. The features used here are the widths, heights, texture, color, perimeter and asymmetrical at various locations along with the fish. First, the measured values are used as input values to a neural network, together with the information on the species. The network is trained to recognize the species from these input data. To decrease the time to train the network, a learning rate, a momentum factor and the elimination of non-contributing connections and nodes were introduced. The testing of the network showed that more than 95% of the fish could be classified correctly.



Sharia Cooperative Performance Strengthening Model: A Study on Sharia Cooperative in Jambi Province, Indonesia

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ABSTRACT

This study aims to solve the performance problem of sharia cooperatives which tend to be slow from a social, financial and sharia perspective where this approach is rarely used in previous studies. The research method used a mixed-method with the Explanatory Sequential strategy. The quantitative method is carried out through a survey to the Sharia Cooperative / Baitul Maal Wattamwil in Jambi Province and the qualitative method used descriptive narrative. The unit of analysis is the Sharia Cooperative in Jambi Province and the observation unit is the Chair / Management of the Sharia Cooperative as many as 32 people. Data analysis using Partial Least Square (PLS). The research variables consisted of transformational leadership and information technology as independent variables, partnership as an intervening variable and the performance of Islamic cooperatives as the dependent variable. The results show that the application of transformational leadership supported by information technology can build partnerships to strengthen the performance of the Islamic cooperative / Baitul Maal wattamwil so that Islamic cooperatives can improve their services to members both in terms of finance, social and sharia. Furthermore, the role of information technology will expand the reach of Islamic cooperatives in increasing the number of members and have an impact on improving the financial aspects of Islamic cooperatives.

Keywords: Transformational Leadership, Information Technology, Partnerships and Performance of Islamic cooperatives



Impact of Digital Marketing Strategy Implementation "Freemium Software" Sustainable Solutions as Use of Digital Producta in Indonesia

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ABSTRACT

This study aims to develop a digital business model strategy called "Freemium Software." This strategy is expected to be a solution for software providers in overcoming sales problems and the sustainable use of software products in today's digital era. This study investigates the effect of user satisfaction on user loyalty (intention to continue subscribing and choice to buy services) of freemium software by developing a research model based on a contextual framework of use, including user characteristics, relational characteristics, and market characteristics. The research method was designed using the form of structural equation modeling-partial least square (SEM-PLS). The research sample used primary data in the form of a questionnaire with the object of research, namely freemium software users in Indonesia, including students, business owners, employees, consultants who were selected randomly so that 138 respondents were selected from 300 distributed questionnaires (Return rate of 46%). This study found that user satisfaction has a positive effect on user loyalty. User characteristics do not directly affect user loyalty. However, it is indirectly proven to strengthen the positive impact of user satisfaction on user loyalty. Relational characteristics and market characteristics are established to have direct and indirect effects on user loyalty.

Keywords: Freemium Software, User Statisfaction, User Characteristics, User Loyalty



The Entrepreneurial Behavior Orientation of Rural Destination Manager Toward Sustainable Destination

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ABSTRACT

Rural destinations will increasingly play a role not only in the tourism sector but in rural development. The managers are communities which categorized as managers and marketers, it consists of various stakeholders. The rural destination however must be sustainable to ensure that destination performance will be better. Hence, this research is aim at to explaining the entrepreneurial orientation of managers and marketers toward sustainable destinations. For this reason, a survey was conducted by combining qualitative and quantitative methods. The qualitative method uses in-depth interviews along with observations of several destinations. While the quantitative method uses a structured questionnaire, which is followed by descriptive data processing and hypothesis testing. The study population was communities in 8 destinations with a sample size of 260 units from various stakeholders who became one community unit. Based on hypothesis testing that using SEM (Structural Equation Model) it is revealed that the role of the influence of manager and marketer performance on entrepreneurial orientation is positive and significant. Likewise, the role of entrepreneurial orientation in this model shows a significant role as a moderating variable on marketing performance. Based on the results and discussion, it is demonstrated that community strengthening is necessary so that the position of marketers and managers is carried out well. Furthermore, efforts to increase value among marketers are expected to be well established. The relationship between these two variables is mediated by a behavioral entrepreneurial orientation that can improve marketing performance in tourist destinations.

Keywords: destination, rural tourism, OMD dan Bumdes



Critical Thinking Assessment in Learning Writing of Scientific Text of Bahasa Indonesia in a high school

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ABSTRACT

Critical thinking assessment in Bahasa Indonesian subject is one of important parts of learning syntax because most of the teachers still use objective test assessment or low level thinking. To overcome this problem, it is necessary to conduct critical thinking assessments in Learning Writing of Scientific Text of Bahasa Indonesia in high school with the aim of finding an authentic and contextual assessment design in achieving learning objectives. The research method uses mixed methods with concurrent embedded design. Data were collected through interview techniques, observation, and documentation for qualitative data, while for quantitative data using essay tests. Based on the results of the research, Bahasa Indonesia teachers have designed a critical thinking assessment in writing scientific texts by conducting the analysis of basic competency, indicators of competency achievement by considering operational verbs, making stimuli, making question grids, question criteria, and scoring by considering critical thinking aspects (1) focus, (2) supporting reasons, (3) organization, (4) conventions and, (5) integration. The result of students' report in writing scientific texts show good critical thinking competencies that appropriate with the learning objective.

Keywords: assessment, critical thinking, write scientific text



Potential of Rebon Shrimp (Acetes Erythraeus) as a Calcium Sources In Bioceramic Hydroxiapatite Synthesis

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ABSTRACT

Rebon shrimp powder contains 3.42% water, 13.31% ash, 73.59% protein and 69.45% calcium. The high calcium content in Rebon shrimp can be used as a source of calcium to bioceramics hydroxyapatite synthesis. Bioceramics hydroxyapatite (Ca₁₀(PO₄)₆OH₂) are biocompatible, bioactive, and non-toxic. The purpose of this study was to use rebon shrimp as a source of potassium in the bioceramics of hidroxyapatite using the hydrothermal method. Precipitated Calcium Carbonate (PCC) was obtained in the process of deposition of phytrate by CO₂ gas at pH 8 from a solution of CaO in 2M HNO₃. XRF data shows that there is a calcium content of 70.8% in CaO from the calcined shrimp rebon. XRD data shows PCC has the highest intensity at 26.1°, 27.18°, 45.8°, 33.08°, 37.83°. This proves that the PCC obtained can be used in the hydroxyapatite bioceramic synthesis.

Keywords: Rebon shrimp, bioceramic, hydroxyapatite, hydrothermal



Hedonic Value and Utilitarian Value in Product Purchasing Decision of Food Truck Business

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ABSTRACT

The purpose of this study is to analyze the influence of Hedonic and Utilitarian values on product purchasing decision in food truck business. This type of research is a mixed method research with a Sequential Exploratory Design research type. This type uses 2 (two) stages, the first stage using qualitative and then continued by using quantitative. The conclusion of this study is that the influence of hedonic value is more dominant than the utilitarian value on product purchasing decision in the food truck business.

Keyword: hedonic value, utilitarian value, purchasing decision, food truck business



Rural English Teachers' Self-Efficacy in Implementing Distance Learning During the Covid-19 Pandemic: A Literature Review Study

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ABSTRACT

This literature review study explores how the self-efficacy of an English teacher who teaches in rural areas in implementing distance learning during the corona virus pandemic. Distance learning occurs all over Indonesia, including rural schools, where in rural areas many teachers or students are still not technologically literate plus signal problems and many other things. These problems become a challenge for teachers who convince themselves that the learning process must continue even though not face to face. The research aims to see how teachers are confident in implementing learning even though it is done remotely, the focus of this study is teachers who teach junior high schools where not all students at that age have smartphones for online learning to be the challenge of teachers in think of effective learning strategies. This research is hopefully can contribute to research related to teacher self-efficacy in dealing with deep distance learning during covid-19. The following topics are presented in sequence; The construct of self-efficacy, teacher self-efficacy, conclusion and suggestion.

Keywords: Self-Efficacy, distance learning, COVID-19



Problem in Assessing Students' Achievement in Online Learning from English Teachers' Perspective During COVID-19 Pandemic: Literature Review Study

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ABSTRACT

This literature review study intends to point out the outlooked issues on English Teacher's problems in delivering good quality of assessment during pandemic, in Jambi Province, Indonesia. The important review of relevant studies on the field of assessment of English teachers shows that there are various topics related to the obstacles and challenges that teachers need to face in order to give assessment that met the standard. In this review, the researcher points out what literatures offered and favored in the area of teachers' hardship regarding assessments and potential policy that government might hold to revamp the situation especially during Pandemic COVID-19 in Indonesia. The related articles being reviewed were not only from Indonesia but also International context. The researcher hopes that this study can contribute to the shining bright progress of conducting assessment of English in Indonesian schools. There will be several topics that are discussed; assessment's standard, e-learning, obstacles, conclusion and suggestions.

Keywords: Assessment, English teachers, e-learning, feedback, obstacles



School Readiness for Distance Learning during the Covid-19 Pandemic: Literature Review

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ABSTRACT

This literature review study aims to investigate the readiness of school to facilitate distance learning, the ability of students and teachers to utilize the learning facilities specifically whether it is perceived to be more than ordinary learning. By distance learning we understand an educational situation in which a teacher and students are not placed in one physical environment. As we know the technology now is very sophisticated and it means technology very useful for current situation, especially for the readiness of the school to face distance learning. A number of factors related to the quality of educational institutions, technology, teachers, parents, and students, in conjunction with charges to their condition states are assumed to be contributing factors that may affect the quality of online learning. The critical review of relevant studies on the field of school readiness for distance learning reveals that there are several topics related to the competence and school have to ready for doing distance learning during pandemic. Several articles that related to the topic being reviewed were from Indonesia and international articles. This research hopefully can contribute for the school is more prepared to face distance learning for a long time. The following topics are presented in order; school readiness for distance learning, online learning during covid-19, conclusion and suggestion.

Keywords: School readiness, distance learning, covid-19



Entrepreneurial Passion, Entrepreneurial Alertness and Islamic Entrepreneurial Orientation: Its Application to the Muslimah Entrepreneur

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ABSTRACT

The success of an entrepreneur orientation from an Islamic perspective is not only measured in material success but also in a growing business. Muslimah entrepreneur needs passion and alertness in entrepreneurship to help to shape an entrepreneurial optimism and make decisions as well as business development efforts. The aims of the research are (1). Analyzing the influence of entrepreneurial passion on entrepreneurial alertness (2). Analyzing the influence of entrepreneurial alertness on Islamic entrepreneurial orientation (3). Analyzing the influence of entrepreneurial passion on Islamic entrepreneurial orientation. Data were collected from a sample of 86 Muslimah entrepreneurs from the Association of Muslimah Entrepreneurs in Jambi Province. Data collection is carried out using a questionnaire as the instrument research. Moreover, path analysis is used to analyze the influence of each variable studied. The results showed that there is a positive and significant influence between: entrepreneurial passion on entrepreneurial alertness, entrepreneurial alertness on Islamic entrepreneurial orientation, and entrepreneurial passion on the Islamic entrepreneurial orientation of Muslimah entrepreneurs. Research implementation will enhance the passion and alertness of Muslimah entrepreneurs and it suggests further studies to strengthen the model of research particularly in terms of Islamic entrepreneurship perspective.

Keywords: entrepreneurial passion, entrepreneurial alertness, entrepreneurial orientation, Muslimah entrepreneur



The Effectiveness of Providing Vulanic Ash (Tuff Vulcan) and Dolomite as Amelioran Materials on The Growth of Immature Liberica Coffee Plants (Tungkal Variety Composite) In Peat Land of Mekar Jaya Village

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ABSTRACT

Liberika coffee is one type of coffee that is widely cultivated by people in wetland areas (peat) precisely in Betara District, Tanjung Jabung Barat Regency. In recent years, this district has become a development center and provider of Liberika coffee seeds for coffee plantation farmers from various regions such as Palembang, Kalimantan and Riau. Liberika coffee is a type of coffee that is able to adapt and produce quite well in peatlands with areca nut as a cover crop. The productivity of coffee in this area is still low at an average of 715 / kg when compared to the potential yield of Liberika coffee which can reach 950 kg/ha. Increasing production and productivity can be done through intensification and extensification. One of the efforts to improve the physical and chemical properties of peat soils so as to increase the growth and production of coffee plants is the use of ameliorants (soil enhancers). This study aims to develop a technology for using ameliorant to improve the chemical properties of peat soil. Specifically, through this study, the dosage combination of vulcan tuff ash and dolomite can be identified. which can substitute the use of artificial fertilizers (inorganic) so that it can increase the growth and production of immature liberica coffee plants on peatlands, especially the coffee plantation of farmers in the village of mekar jaya, betara district, tanjung jabung west district. Completely randomized block design were used in this experiment with six treatment and four replication. The treatments were volcanic ash and dolomid with three dosage as follow 250g, 500g and combination treatments each dosage 250g0/ trees. From the results of this study it can be concluded that the treatment of volcanic ash and dolomite did not show significant differences in plant height parameters and, stem diameter. but it gives a real difference to the growth of live area, the number of flowers per bunch and the number of flowers in each bunch, treatment of volcanic ash 500 / gr / tree and dolomite 500 / gr / tree and a combination of volcanic ash 250 / gr / tree + dolomite 250 / gr / tree after 7 weeks of application can significantly spur on the initiation of flowering an average of 7 bunches of branch flowers if compare with control (no treatment). Likewise, observations 8 weeks after application showed the same thing, there was an increase in the number of flowers formed an average of 11 flower clumps branching. From the results of this study, it can be concluded that the provision of ameliorant from vulcan tuff ash and dolomite can improve the chemical properties of peat soil so as to increase nutrient availability for growth and production of the Liberika coffee plant. From the results of this study, it can also be suggested that the use of volcanic ash and dolomite at a dose of 250-500 gr / tree to accelerate the productive phase of immature liberica coffee plants (young plants) in peatlands.

Keywords: ameliorant, growth and production of Liberica coffee.



Corelation Between Higher Order Thinking Skills And English Achievement Of Students In Akper BIS Sungai Penuh

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ABSTRACT

In the 21st century, education must prioritize teaching of higher order thinking skills (HOTS) to students rather than merely memorizing facts, the application of which is still unclear (Richland dan Simms, 2015). Higher order thinking skills are part of Bloom's taxonomy. According to Bloom's revised taxonomy, there are six levels of cognitive processes namely (C1) remember, (C2) understand, (C3) apply, (C4) analyze, (C5) evaluate, and (C6) create. This review study aims to know the higher order thinking skill of students and the relation between student's higher overthinking skills and English achievement in AKPER BIS Sungai Penuh Students. In this review the researcher expected to contribute to education and enrich the result of existing research and can provide an overview of the relationship between higher order thinking skills and English achievement.

Keywords: Higher Order Thinking skill, English Achievement



The Students Response of Using Discuss Method in Learning Speaking of English Department Students of IAIN Kerinci

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ABSTRACT

English is one of the most important languages, that students learn in many Parts of the world, Because English is an international language, it has been well Known and used as a second language or foreign language. The basic of learning English was speaking, listening, reading and writing. In This research the researcher will research about speaking. This literature rivew study aims to know the importance of discussion methods in learning speaking and difficulties in using discussion method in learning speaking at second semester students of English department at IAIN Kerinci. In this review the researcher expected how the teacher know the students response of using discussion method in speaking, and for better learning for the students.

Keywords: Discussion Method, Speaking, Students' Responses.



Teachers' Teaching Strategy to Improve Students' Speaking Achievement in Online Learning

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ABSTRACT

This study focuses on Teachers' Teaching Strategy to improve Students' Speaking Achievement in Online Learning. The Covid-19 pandemic has changed the learning system in school. Therefore, teachers are required to be creative to improve students' achievements in online learning. In the world of education, there are many things that can support the learning process and achievement, one of them is Strategy that must be owned by the teacher in supporting teaching and learning process either in the classroom or in online learning. Kistner, Racoczy, Otto, Klieme, & Buttner (2015) state that besides teaching subject related knowledge and skills, one important thing that teachers are expected to do in classrooms is provide students with knowledge of how to learn: they may teach them of how to motivate themselves to start preparing for a test, what steps to take to solve a complex problem, how to monitor their own learning process, etc. that they are promoting teaching strategies. Teaching strategy can be referred to as the methods used by the teacher in helping the students learn the desired courses contents and able to develop achievable goals.

Keywords: Teachers' Teaching Strategy, Students' Speaking Achievement, and Online Learning



Estimated the Requirements for Calcium and Phosphorus of Female Ayam Arab in Semi-Scavenging Systems in Tropic Areas

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ABSTRACT

The ability of chickens to retain calcium and phosphorus at high temperatures is low, so a lot of calcium and phosphorus is wasted through faeces. This study aimed to calculate the calcium and phosphorus requirements of female ayam Arab until the first age of laying eggs in a semiscavenging system with a free choice feeding system in tropical climates. The research design was a completely randomized design with four treatments and each treatment was repeated 4 times and each replication consisted of 18-day old chick female ayam Arabs. The treatments were (a) control feed, (b) high calcium high phosphorus feed and high calcium low phosphorus feed, (c) high calcium high phosphorus feed, high calcium low phosphorus feed and high calcium high phosphorus feed, and (d) high calcium high phosphorus, high calcium low phosphorus, low calcium high phosphorus, and control feed. The protein and energy content of all feed was according to the age period of the chickens based on the results of research by Adrizal et al (2017), while calcium and phosphorus were based on feed standards from Hy-line International in 2018. The data collected are feed consumption, calcium and phosphorus consumption, calcium and phosphorus concentrations in the feed consumed, levels, and concentrations of calcium and phosphorus in bones and blood. Data were analyzed using ANOVA. This research has only been going on for 3 weeks. Consumptions of feed, calcium, and phosphorus were not significantly different (P> 0.05) between treatments until week 2, but they were significantly different (P> 0.05) between treatments in week 3. The calcium concentration of the feed consumed was significantly different (P < 0.05) between treatments. Calcium concentration in control diets was significantly lower between treatments, whereas between T2, T3 and T4 were not significantly different in week 1 and 2 (P < 0.05). During week 3, Ca concentration of T1 was similar with T2 and lower than T3 and T4. The phosphorus concentration of the feed consumed was significantly different in the first week, but not different (P> 0.05) in the second and third week. The chicken body weight gain did not differ between treatments (P>0.05) each week. It can be concluded that the concentration of calcium in the control diets was smaller than the requirement for female ayam Arab, while the phosphorus concentration in the control diets was similarly based on the free-choice feeding system. The growth rate of female ayam Arab for three weeks has not shown any difference.

Keywords: calcium, phosphorus, free-choice, female ayam Arab, semi-scavenging, tropics.



Determinant factors of Financial Reporting Quality; Study at Regional Development Banks in Sumatera

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ABSTRACT

This study examined the simultaneous influence of performance credibility, go-public companies, company director with adequate auditing experience, age of CEO, material weakness disclosure, changes in public accountant, connection between CEO with the government, and Good Corporate Governance on the quality of financial reporting of Regional Development Banks in Sumatera. This study also analyzed the partial influences of Independent variables on the quality of financial statements of Regional Development Banks in Sumatera, and determined the variable with the strongest influence on the quality of financial statements of regional banks in Sumatera. Secondary data were analyzed using logistic regression tests. Sample in this study is all of Regional Development Banks in Sumatera. The hypotheses of this study consist of three types of tests; Simultaneous Significance Test (F test), Individual Parameter Significance Test (T-test), and Coefficient Determination Test (R2). The results of the data analysis showed that : the first, performance credibility, go-public companies, company director with adequate auditing experience, age of CEO, changes in public accountant, connection between CEO with the government, ,material weakness disclosures, and Good Corporate Governance simultaneously affected the quality of financial statements reporting at regional banks in Sumatera. Secondly, material weakness disclosures and Good Corporate Governance had partial influence on the quality of the financial reporting, Meanwhile, performance credibility, go-public companies, directors with auditing experience, age of CEO, changes in public accountant, and the connection between CEO with the government had not partial influence on the quality of the financial reporting. Third, All influence significance (65%) on the quality of financial reporting of variable was found regional banks in Sumatera.

Keywords: Good corporate governance, public accountant and quality of financial statements.



The Paradigm of Zakat Utilization as Efforts To Improve The Welfare Of Mustahik in The Perspective of Laws And Regulations Applicable in Indonesia and Malaysia

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ABSTRACT

Zakat as the third pillar of Islam after prayer is a worship that has the dimension of Maaliyah ijtimaaiyah besides worship Mahdhah, an economic instrument that can encourage the creation of mustahik socio-economic welfare. When connected with utilization, the zakat is seen as an object that can be encouraged to provide maximum benefits to those entitled to receive it in accordance with the provisions of zakat figh. This study formulates what are the similarities and differences between the laws in force in the State of Indonesia and those in the State of Malaysia regarding zakat utilization arrangements and how the concept of zakat utilization is ideal in an effort to improve the welfare of mustahik according to Law Number 23 of 2011 and zakat law in Malaysia. In this study the approach used is normative juridical legal research combined with empirical research. The results showed that one of the similarities and differences between the laws that apply in the two countries to the utilization of zakat are equally governing the management of zakat in a particular legislation managed by a particular legal entity, while the difference is that in Indonesia the laws concerning zakat management applies universally to all citizens of the Unitary Republic of Indonesia, but in the State of Malaysia the management of zakat applies locally, between one zakat law (delicious) in one country also applies in another country. This study found a legal concept that is the use of zakat to make it more effective and accountable. The substance of the zakat law needs to be patched up if it does not want to be changed by inputting the penalties provisions for muzaki who did not pay zakat in that year. The current law on zakat management only contains criminal provisions for amil zakat only (Articles 39, 40 and 41 of Law No. 23 of 2011.

Keywords: Concept, Utilization of Zakat, Prosperity and Mustahik



Drawing of Agency Laws Village Owned Businesses in Efforts to Make Village Community Welfare

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ABSTRACT

This study aims to study and analyze in depth the preparation of the Village-Owned Enterprise Bill in an effort to realize the welfare of rural communities. The problem raised in this study discusses whether the regulation of village-owned enterprises with laws can develop the economy of rural communities and what are the materials of the law on village-owned enterprises in order to create welfare for village communities. This study uses a normative juridical method with a statutory approach and an approach in order to identify whether the village-owned enterprise can be used as a model in the implementation of the village economy. The results of the study illustrate that the village community with all the local wisdom that grows and develops in the village community as a customary law community unit can improve their welfare with the message of village-owned enterprises as an economic forum. Likewise with the law which is used as a development instrument for the welfare of the village community. The diversity of the socio-cultural values of the village community contained in local wisdom is guaranteed constitutionally. The basic legal philosophy that fosters the earth and the natural wealth contained in it is used for the greatest prosperity of the people can be implemented to improve the welfare of rural communities by using business entities as a form of the community's economy.

Keywords: Village Owned Enterprises, Pancasila Economy



Brown Analysis Model for Measuring The Performance of Local Governments with Related to Budget Management Jambi City Government Revenue and Expenditure Year 2016 – 2019

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ABSRACT

This study aims to assess the financial performance of the Jambi City Government using the Brown analysis method. The data used in this study is quantitative data sourced from the BPK RI Audit Result Report Jambi representatives for the period 2016 to 2019. Measurement of the financial performance of the Jambi City Regional Government using the 10-point Brown Model. To measure the financial condition of LGs, first, the analysis first calculates the 10 key financial ratios of all LGs based on the existing financial statement database. Second, calculate the data quartile consisting of 4 quartiles. Third, each quartile scores respectively -1, 0, 1, and 2. The final step in assessing a local government's financial condition is to provide a score on its financial condition. The results of the study state that the performance of the Jambi city local government in 2016-2019 in terms of revenue has lower performance than other local governments. Meanwhile, the performance of the Jambi city local government in 2016-2019 in terms of expenditure has performed better than other local governments in Jambi Province.

Keywords: Performance, Regional Budget Management



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Digital Cashless Payment Readiness Model On Msmes Using Technological-Organization-Environment (TOE) Framework: Study On Msme Users Gopay And Ovocash

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ABSTRACT

Every business is required to create a competitive strategy that is good as the key to success, one of the strategies that many large companies implement today is with the use of digital cashless payment or digital payment methods that will facilitate consumers in making payments in both online and offline sales. The use of this payment method has also begun to be adapted by Small and Medium Enterprises (MSMEs) where MSMEs have begun to cooperate with digital payment service providers including the largest and largest in Indonesia namely GoPay and OVOCash. This research aims to look at the level of uptake of MSMEs readiness in the use of this digital payment platform as measured using the Technological-Organization-Environment (TOE) Framework approach, where it can be seen whether MSMEs, especially in the sumatran island region represented by 5 major cities in Sumatra namely Aceh, Medan, Jambi, Pekanbaru and Lmapung are ready to use this digital payment technology. The study used a sample of respondents, namely MSMEs who have collaborated with GoPay and OVOCash applications totaling 175 MSMEs. This research uses PLS and Path Analysis techniques with the SPSS test tool. The results showed that MSMEs in sumatra region can absorb the use of digital payments seen in terms of Technology with a percentage absorption of 75.8%, Organization by 41.2% and Environment by 58.2%. It can be concluded that the average MSME in sumatra region is ready in using GoPay and OVOCash digital payments for its business where increasingly advanced technology tends to be adopted by businesses to facilitate their business.

Keywords: Digital Cashless Payment, MSME, TOE Framework.



Health Workers' Legal Protection Policy in The Covid-19 Containment Measures

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ABSTRACT

COVID-19 outbreak spreads quickly and massively. The response to COVID-19 involves all elements, not only the State but also the wider community so that the spread of this virus can be prevented and the death rate can be reduced. Health worker are at the forefront of handling COVID-19, but they are also vulnerable to get infected by virus. Several cases show that many health workers tested positive after providing health services. This article is divided into two parts that are the right of health workers in containment measures and which legal frame work should be formulated to protect them from pandemic. The research shows that the right of medical workers to get personal protective equipment and safety guarantees are not enough to protect them. On the other hand, community are still ignore about the risk of this disease. Health workers can perform their job effectively if people are in healthy condition and do not need to go to hospital. The law enforcement is one of effective way to protect people and health workers by regulating and giving penalty to the perpetrators of the COVID-19 protocol.

Keywords: health workers, legal frame work, COVID-19.



Effect of Nothopanax Scutellaium Merr on Mastitis and milk Quality of Etawah Cross-Breed Goat

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ABSTRACT

Twelve Etawah Cross-breed goats were used to determine the effect of Nothopanax Scutellaium Merr on Mastitis and milk Quality of Etawah Cross-breed Goat. A randomized block design was used in this study with 3 treatments and 4 groups. The treatments of the research were P0 = control diet, P1 = P0 + 20 g Nothopanax Scutellaium Merr, P2 = P0 + 40 g Nothopanax Scutellaium Merr. Goats were reared for one month and milk samples for mastitis were taken once a week for analysis. The results showed that giving Nothopanax Scutellaium Merr in the ration could reduce the SCC and CMT of milk (P < 0.05), but did not affect the amount of bacteria, pH, fat and milk protein. The conclusion of this study is that giving Nothopanax Scutellaium Merr in the ration can reduce mastitis in goats, namely reducing SCC and CMT and does not affect milk protein and fat.

Keywords: Etawah cross breed, Goat, mastitis, Nothopanax



The Legal Implications of Gender and Non-Discriminative Principles In The Health Act Number 36 on 2009 to Strengthening The Right to Informed Consent for Indonesian Women

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ABSTRACT

This research is motivated by social facts which show the low level of public awareness regarding the fulfillment of the right to informed consent for Indonesian women. In principle, the patient has the right to informed consent directly for all medical actions to be performed, regardless of race and gender. However, the influence of gender-related social attributes- that placed women in an inferior position compared to men has made women lose their personal rights, especially related to the right to informed consent. In practice, the fulfillment of this right is delegated to the closest male family members. In principle, these social facts are perceived as contradicting the recognition of gender principles and non-discrimination which are the basis for the formation of health law norms. As a legal research, it used secondary data those collected from the legal norms and theories to found the legal philosophy of this right's existence. And the results of this research had been showed that the right to informed consent based on the equality, justice and beneficial values. And these values must be implicated on the clear and strict norm to protect the rights of Indonesian women on health matter by making legal reformulation of the right to informed consent.

Keywords: health right; informed consent, legal reformulation; women



Using The Active-Flipped Classroom With A Learning Management System (Lms) To Enhance Mathematics Learning

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Learning mathematics in this current pandemic is a challenge for teachers. Such as the achievement of competence in learning mathematics and also student involvement such as conventional classes. This research aims to explore the benefits of the active-flipped classroom model assisted by LMS in mathematics learning. The participants were 74 students of the 6th-semester mathematics education study program who took computational mathematics courses. A mixed-method research design was used, namely quantitative data from pretest and post-test learning outcomes and qualitative data in the form of student perceptions in learning experiences using the active-flippled classroom model, through observation semi-structural interviews. The results showed that active-flipped classroom learning assisted by LMS not only increases motivation, makes students active in online learning, but also significantly improves learning outcomes.

Keywords: Mathematics education, e-leanning, Learning management system



Students' Motivation in Reading Online Sources in Moodle at English Study Program in Jambi University

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ABSTRACT

Reading is a complex skill that involves recognizing written words based on the content of the text which is combined by reader's prior knowledge (Miculecky, 2011,p.5). Reading is very important such as reading can develop the readers interest, reading can improve the readers understanding about the rules of life and the truth, reading can be guidance for the readers to prepare an action, reading help readers gain experience from other people, reading can influence the readers in the real life situation, and reading can enhance the new vocabulary (retrieved www. Huffingtonpost.com). This system implements structured forms of reading and writing activities which promote the guided use within the course (Dougjamas, 1999b as cited in Kowiah.p.189). On other hand, Doughjamas (1999b) as cited in Kowiah,p.190) state that the activity of reading is very important of learning on the internet and it can also be combined with writing activities. The researcher focused on students' motivation in reading online resources in MOODLE, and also highlighted on reading for academic purposes semester IV. The object of the study is to investigate students' motivation in reading online sources in MOODLE. The benefit of the research are to provide informations about MOODLE as a learning media that can motivate students' in reading online sources and can create interesting class environtment.

Keyword: Reading, MOODLE, Motivation



The Use of Information Technology in Improving The Quality of Financial Reporting in Micro, Small and Medium Enterprises

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ABSTRACT

Micro, small and medium enterprises have an important role in the economy of a country. Although the role of micro, small and medium enterprises has been recognized nationally, micro, small and medium enterprises face many challenges and obstacles, especially in producing quality financial reporting. For this reason, this study was conducted to investigate the use of information technology in improving the quality of financial reporting for micro, small and medium enterprises. To achieve this goal, this study developed a structural questionnaire, which then randomly distributed it to 98 micro, small, and medium enterprises in Jambi City. This study found that most businessman in micro, small and medium enterprises agree that micro, small medium enterprises need a computerized system to help record transactions to create financial reports and the importance of financial reporting in decision making. However, this research shows that there are still micro, small and medium entrepreneurs who do not use computerization in their operational activities and still use manual systems. The results showed that many micro, small and medium enterprises have used technology to improve the quality of financial reporting. The use of information technology as part of digital transformation such as paperless accounting or digitizing documents that was previously done manually. In addition, micro, small and medium enterprises also use internetbased and desktop applications to improve financial reporting.

Keyword: Use Of Information Technology, Digital Transformation, Quality of Financial Reporting, Micro Small And Medium Enterprises.



Welfare Analysis of the Second Generation Transmigrant (Extransmigration Study of Two Villages in Rimbo Bujang Sub-District, Tebo District)

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ABSTRACT

This study aims to: 1). Analyze the characteristics of the second generation of transmigrants according to age group, sex, marital status, education, a field of business, type of work, employment status, and ownership of a side job at the research location. 2). Analyze the level of welfare the second generation transmigrants compared to the first generation according to land ownership, housing conditions, household assets, income and savings, and education in the research location. This study uses primary data. The research location was determined by purposive sampling in 2(two) out of 10(ten) villages in the Rimbo Bujang District. The consideration of determining the sample in this study was related to the location and ease of access to the first village related to the placement of transmigrants. The research instrument used a questionnaire by interviewing 80 heads of households. Sampling was carried out by random methods using a Generated Random Number (RNG). The methods of analysis used in this research are descriptive qualitative and quantitative. The results of the study concluded that the productive age of the second generation was 42.05 years about 68.75 percent of male family heads. Second-generation income from second jobs about 57.50 percent. Own land ownership status 53.75%. Housing Average floor area 23.41M². The widest type of ceramic floor is 41.25%. The widest brick wall is 73.75%. The widest tile is 73.75%. Of the asset ownership, 26.25 percent own a car. Motorcycle 60.00 percent. Washing machines 77.50 percent, and refrigerators 92.50 percent. The absorption of labor as much as 63.75% of the business sector is in the plantation sector. Meanwhile, 61.50 percent of agricultural and livestock workers, then 66.25 percent as entrepreneurs. Income 42.50 percent from side jobs, average savings of around Rp1.895.215, where the majority of about 58.75 percent comes from high school graduation/equivalent. The welfare of the second generation is better than the first generation. Thus the need for improvements in various aspects, education, economy, income and savings, asset ownership, employment. In the future, research is expected to consider more variables, models, respondents, and research locations.

Keywords: Second Generation transmigrants, Welfare, Side jobs, Savings



EFL Students' Reflection on Their Semester Project

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ABSTRACT

Self-reflection is one way to improve learning. The present qualitative study examines the EFL students' self-reflection on their semester project. The participant was a class of EFL students who took Second Language Acquisition subject in a public university in Jambi. The data were taken through open-ended questionnaire and informal interview through WhatsApp group. The findings of the study reflected that there are three benefits the students got from the project they have undertaken. First, the process of doing project increase the students' awareness on their lacks and on the importance of working collaboratively. Second, it triggered them to develop their reading and writing skills. Third, the students get insight for their future learning. The finding suggests designing the teaching learning process which activate students self-directed learning.

Keywords: EFL students, self-reflection, semester project, self-directed learning



A Model of Coffee Commerce in Jambi Province

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ABSTRACT

Jambi Province is one of the coffee producing provinces in Indonesia, there are 3 types of coffee produced and is a mainstay of coffee from this area namely Robusta Coffee, Arabica Coffee and Libtukom Coffee (composite tungkal liberika). These three types of coffee are grown in each of the different regions. Robusta coffee is centered in Merangin Regency, for Arabica coffee in Kerinci Regency and Libtukom Coffee is located in West Tanjung Jabung Regency. The aim of this research is to recognize at the coffee trade path in Jambi Province. From the results of the study, it is known that each coffee producing region has different trade paths. For robusta coffee and liberika each has a commercial line consisting of: 1. Farmer to toke and then to collector and export. The second line from Petani to MSME / Persero is then sold to consumers. For Arabica coffee The distribution line consists of 4 lines namely farmers to cooperatives and exports. The second line from farmers to UPH then to cooperatives and exports, the third line starts from farmer to company then to big traders and exports and the fourth line from farmer to company dank e consumer. The distribution channel of coffee trading will have an impact on the low selling price of coffee at the low level which is the farmers. The model of coffee trading that can help increase the selling price of coffee at the farmer level in order to create that, there have to be a good synergy between coffee farmers, cooperatives and exporters.

Keywords: Model, Commerce, Coffee



Implementation of Digital Content Marketing as a Lifestyle mediation in Purchasing Batik Jambi

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ABSTRACT

Indonesia is the largest country in Southeast Asia with the largest digital economy in 2020. Lifestyle changes provide opportunities for local businesses to expand their marketing networks and be able to publish regional specialty products. Batik Jambi has enormous potential if it is promoted with an extensive network. Management in digital content marketing is thought to be the right choice to promote Jambi batik. The objectives of this research are: (1) To examine the influence of lifestyle on purchasing decisions; (2) Assessing the influence of lifestyle on digital content marketing; (3) Assessing the influence of digital content marketing on purchasing decisions; (4) Assessing the role of digital content marketing in mediating the influence of lifestyle on purchasing decisions. The population of this research is consumers who purchase goods through social media, while the sample is consumers who have at least more than two purchases of Jambi batik through social media as many as 200 people. The data method uses the data analysis method used by measuring Structural Equation Modeling (SEM) using the SmartPLS software. The results show that (1) digital content marketing shows a significant positive effect on purchasing decisions, the role of technology development is useful in delivering digital information that can improve purchasing decisions; (2) lifestyle shows a significant positive effect on digital content marketing, the higher the lifestyle changes, the application of digital content marketing must increase by adjusting the lifestyle; (3) lifestyle shows a significant positive effect on purchasing decisions, with increasing lifestyle changes in consumers in their environment affecting the increase in consumers in making purchasing decisions; (4) digital content marketing as a mediation for the influence of lifestyle shows a significant positive influence on purchasing decisions, digital content marketing is considered a variable that strengthens the influence of lifestyle in purchasing decisions.

Keywords: Digital Content Marketing, Lifestyle



Optimizing the Use of English Learning Material of Basic Vocabulary for Young Learners: A Literature Review

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ABSTRACT

This literature review study aims to address the issues on English student's problems in order to develop their vocabulary at Bungo city in Jambi Province, Indonesia. The critical review of relevant studies on the field of teaching English for young learners, specifically learning vocabulary reveals that there are several things need to be done to better improve the student's vocabulary competence. In this review, the researchers present what literatures suggested and recommended in the area of teaching vocabulary for young learners might hold to optimizing the students English competence in junior high school 6 Tanah Sepenggal, Bungo. This study hopefully can contribute to the betterment of teaching English specially teaching vocabulary in Indonesian schools. The following topics are presented in order; teaching vocabulary for young learners.

Keywords: English teaching, teaching vocabulary for young learner, English learning material.



Nanofication of Peatland Fraction for Advanced Material Modifier as a Solution to Treatment of Color Pollution in the Water Near Batik Jambi Creator's Settlement

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ABSTRACT

The nanomagnetite / AH-Chitosan adsorbent has been successfully synthesized by the coprecipitation method. The peat soil comes from Geragai village, Tanjung Jabung Timur, Jambi province and was extracted based on the recommendation of IHSS (International Humic Substance Society). Characterization by FTIR and XRD has shown a difference in the spectrum between humic acid, Fe3O4, and Fe3O4 / AH-chitosan. The FTIR spectrum for Fe3O4 / AH-Chitosan showed the presence of the –COOH group which plays an important role in the bond between AH-chitosan and Fe3O4. XRD characterization showed a 2 θ peak of 35.86 ° which indicated the AH-Chitosan layer on Fe3O4.

Keywords: nanomagnetite, humic acid-chitosan, textile dyes.



Zeolite Coating With Phenantroline For Adsorption Of Fe(III) Ion

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ABSTRACT

Natural zeolite contains impurities such as Na, K, Ca, Mg and Fe and has poor crystallinity. The presence of these impurities can reduce the activity of zeolites. To improve the character of natural zeolite, activation and modification are carried out first. In addition to removing impurities contained in natural zeolites, zeolite activation processes are also used to modify the properties of zeolites, such as surface area and acidity. One of the advantages of zeolites is that they have a surface area. and readily modifiable acidity when used as an adsorbent. This research aims to; find out the natural zeolite coating process using phenantrolin; find out the pH of the solution against the adsorption process of iron (III) metal ions using phenanthrolin coated zeolites; find out the effect of other metals on the adsorption process of iron (III) metal using phenanthrolin with coated zeolite. The stages carried out in the study began with the preparation process of 250 mesh zeolite which was activated using 1 M HCl solution. Then the zeolite coating process was carried out by mixed it with 10 ml distirer for 1 hour, the residue was dried and then it would be ready for the adsorption process. After that, it was followed by characterization of the adsorbent with FTIR at a wave number of 3400-250cm-1 and repeated for the adsorbent that had adsorbed iron (III) ions. The final step is to carry out the adsorption of iron (III) ions, where the process is carried out with variations in pH 2,6,8 and variations in contact time, that were 5, 10, 15, 30, 45, 60 (minutes). The results showed that natural zeolite after the activation process with hydrochloric acid had increased crystallinity. The results of pH variations showed that for the natural zeolite the higher the pH, the higher the adsorbent's effectiveness, while for the activated zeolite, the higher the pH, the lower the adsorbent's effectiveness, the variation in contact time showed that the longer the contact time, the effectiveness of natural zeolites and activated zeolites will decrease. The results of the concentration variation showed that the greater the concentration, the lower the effectiveness of natural zeolites and activated zeolites. Adsorption of natural zeolite on Fe (III) metal ion follows the Freundlich isotherm pattern with an n value of 0.09. Activated zeolite adsorption on Fe (III) metal ions followed the Langmuir isotherm pattern with a maximum capacity (Qm) of 1.18 mg/g.

Keywords: Fe (III) ion adsorption; Phenantroline; Zeolite



The Forms of Gender Difference in the Culture of Jambi Malay

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ABSTRACT

Some of the indications and tendencies of gender difference within the languages of Jambi Malay were found in a dictionary published by the Language Office of Jambi province in 2015, entitled Kamus Kosakata Budaya Jambi. These indications and tendencies display some language constructions that place men as superior and hegemonic individuals over women. Furthermore, the tendency was identified from the language used in cultural aspects (i.e., the classification and separation of spaces of the men from women, is according to the roles of system standard, professions, educations, dressing, and language). All of these were gender ideology believed by the community. Culturally, the community people assume that gender is the classification of sexes, men, and women. Therefore, this understanding leads to a big problem related to the relationship between men and women in a cultural system. Therefore, the aim of this study is to identify and analyze the forms of gender differences in the culture of Jambi Malay. This qualitative study uses ethnolinguistic approach. The results of this study demonstrated many cultural terms in Kamus Kosakata Budaya Jambi (2015) which shows the tendency towards gender difference. Meanwhile, the cultural terms were figure of speech. prohibitions, expressions, and proverbs which display a cultural practice that metaphorically strengthens the patriarchal position in the culture.

Keywords: Gender, Difference, Culture, Jambi, Malay



Mosque-Based Islamic Microfinance: A Holistic Empowerment Strategy

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ABSTRACT

This study aims to overcome the problem of not optimizing the management of mosque funds in Jambi City for community economic empowerment by using a mosque-based microfinance strategy with a holistic approach. This study uses a qualitative approach with grounded research methods. The sample of this research is the Jami Mosque in Jambi City which actively manages 163 mosques of zakat, infaq, alms and waqf. Data collection used triangulation of sources and techniques. Sources of data were obtained through mosque administrators, mosque amil, and ulama from the Indonesian Ulema Council as well as sharia microfinance expert practitioners and academics. The data collection technique uses observation to selected mosques that have best practices and in-depth interviews. Data analysis using descriptive narrative consisting of data reduction, data display and conclusion/verification. The results showed that the mosque has enormous potential in the productive management of zakat, infag, alms and wagf funds for the community empowerment by using a microfinance strategy with the Baitul Maal Wattamwil model. The potential is institutional, financial, human resources and membership potential. However, some of the prerequisites are: 1) internal prerequisites, including strengthening the human resources of candidates for Baitul Maal Wattamwil managers through education and training, equating the perceptions of mosque administrators through the socialization of Baitul Maal Wattamwil, governance of Baitul Maal Wattamwil regarding mosque management. While the external prerequisites include 1) strengthening Islamic financial literacy for the community/congregation, 2) conducive regulations from the local government / related agencies, namely the cooperative office and the Ministry of Religion; 3) the APEX institution that manages the Baitul Maal Wattamwil capacity building scheme towards sustainability.

Keywords: mosque-based microfinance, holistic approach, baitul maal wattamwil, mosque funds, grounded research



Exploring Spiritual Mission within Islamic Microfinance in Indonesia

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ABSTRACT

This study aims to explore the spiritual mission of Islamic microfinance, which has not yet been established in the microfinance literature. A qualitative approach is used with the grounded research method. The object of research is 105 Islamic cooperatives in Indonesia. Data collection using triangulation of sources and techniques. Sources of data were obtained through informants who are sharia microfinance experts, namely Managers or heads of Islamic cooperatives in Indonesia, scholars from the Indonesian Ulama Council and academics. Data collection techniques used observation, interviews and focus group discussions with the Delphi method as well as record reviews of relevant documents. Data analysis uses descriptive narrative consisting of data reduction, display data and conclusion drawing/verification. The results of the study found that the spiritual mission of Islamic microfinance is an effort made to maintain Islamic Cooperatives and foster stakeholders to properly practice sharia principles (kaffah). This mission is manifested in four activities, namely: 1) exemplary Sharia covering the words and good behaviour of the managers according to the guidance of the Al-Qur'ran and Hadiths which are always maintained to be applied in the work environment; 2) sharia compliance: 3) sharia education; 4) sharia training related to worship and human relations. Spiritual missions have been implemented by sharia cooperatives in Indonesia in all their dynamics. The dominant activity carried out is exemplary Sharia and the least is sharia training. Thus, this research enriches the literature on microfinance by strengthening the spiritual mission towards the triple mission of Islamic microfinance.

Keywords: spiritual mission, Islamic cooperatives, exemplary sharia, sharia compliance, sharia education



Phosphate Removal from Laundry Wastewater Using Activated Carbon Derived from Rubber Fruit

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ABSTRACT

The washing waste from the laundry industry contains various parameters that can pollute the environment. Various efforts have been made but have not been able to reach the small to medium scale laundry industry, this happens because of the high cost of technology used. In this paper, we have succeeded in creating a simple technology that can be used to reduce pollutant parameters in laundry waste. This research has succeeded in creating an adsorbent with raw materials of rubber fruit shell waste, studies on manufacturing techniques, adsorbent characteristics, ability to reduce phosphate content and adsorption isotherm models are well described in this paper. The results of this study also promote the utilization of rubber shell waste which has not been utilized properly. This study succeeded in reducing phosphate levels by up to 98% by adding 0.5 g of adsorbent to 100 mg / L of phosphate for 60 minutes of treatment. The appropriate adsorption isotherm model in this study is the Freundlich isotherm model

Keywords: Adsorption, laundry wastewater, Freundlich model, rubber fruit shell



Efficacy of Yam Seed (*Pachyrizus erosus* Urban) Active Extracts on Thrips (Thysanoptera) Pests in Chili Plants: Experimental Garden Scale

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ABSTRACT

Thrips (Thysanoptera) are important plant pest insects in agriculture. Plant damage caused by pests thrips can be affected by abundance. Control that continues to be carried out by farmers on agricultural land to date is to use synthetic insecticides periodically, without analysis of pests or absence of pests in the field. This has a negative impact on living things and the environment. Currently pest control is being promoted by using environmentally friendly plantbased insecticides. One of the plants that has the potential as a vegetable insecticide is yam. Yam seed can be used as a vegetable insecticide because they contain rotenone compounds that can kill insect pests. The results of previous studies on a laboratory scale, trials of isolates and active extracts of yam seeds on pests trips, significantly affected the feeding activity and the phenomenon of attack ($\alpha = 0.05$). The purpose of this study was to analyze the effectiveness of the vam seed extract on pest thrips in chili plants to be developed as a vegetable insecticide. The trial was conducted in the experimental garden with 6 treatments, using concentrations of 0%, 2%, 4%, 6%, 8% and 10% with 4 replications. Test plants were sprayed with various concentrations of yam seed extracts, while comparative plants without yam seed extracts. Three species of thrips were found in the test plants, namely Thrips parvispinus, Thrips palmi, and Haplothrips sp. Furthermore, the results showed that giving of yam seed extract effectively reduced the number of individual pest thrips to chili plants ($\alpha = 0.05$). The results of this study can be used as a reference for the development of plant-based insecticides with active ingredients yam seed extract.

Keywords: Efficacy, active extract, yam seed, vegetable insecticide, chili plant; experimental garden scale



Estimation of Burned Peat Area from Landsat 8 OLI Imagery Using C4.5 Decision Tree Classifier: A Case Study of Sipin Teluk Duren Village, Indonesia

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ABSTRACT

The problem of forest fires has become a national issue that deserves serious attention from the government. This fire occurs every year repeatedly, especially in Jambi province. Many forest fires occur on peatlands, in August 2019, 810 hotspots were detected in Jambi Province. Peatland has an important role that needs to be protected. Peatland can tie up the carbon that contribute to reduce greenhouse gases in the atmosphere. Estimate Burn Area of Peatland needs to be done, so that the government can determine policy on the effectiveness and efficiency of forest management. This study applied C4.5 decision tree classifier to classify burned area, vegetation and bared soil from remote sensed data of protected area of peat in Sipin Teluk Duren Village, Muaro Jambi District Jambi Province. This research obtained a classifier with the accuracy of 99%. The estimated area of peat based on C4.5 decision tree classifier on August 15th 2019 is 1145 Ha at the burned area class, 2625 Ha at the vegetation class and 582 Ha at the bared soil class.

Keywords: C4.5 decision tree classifier, Forest fire, Landsat 8, Peatland



Rapid Artificial Diagnostic Test in Education: Challenges and Opportunities for Sustainable Development

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ABSTRACT

Digital technologies have already become an internal part of our life. They change the way we are looking for information, how we communicate with each other, even how we behave. This transformation applies to many areas, including education. The main objective of this article is to identify the prospective impact of artificial technologies to the study process and to predict possible changes in the educational landscape. In presented research, we considered four categories: customize educational content, innovative teaching methods, technology-enhanced assessment, communication between student and lecturer. Having reviewed publications on the subject we present here a possible picture of how Artificial Intelligence (AI) will reshape the education landscape.

Keyword: Digital technology, Rapid artificial diagnostic, Artificial intelligent, Misconception



Integrated Soil Measurement System with Conductivity and Ph Sensors for Peatlands Analysis

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ABSTRACT

An integrated sensor-based instrument to measure soil conductivity and soil pH in peatlands has been designed. Conductivity and pH are important soil characteristics for determining the level of peatlands damage after being hit by forest fires. This measuring system is divided into three parts: the sample area, the sensor part that will detect the physical parameters of the sample, and the circuit box. This measuring system also consists of hardware and software parts. The hardware parts comprises of an RS485 output EC10 sensor, a pH sensor, an Arduino Mega2560 microcontroller and an LCD monitor. While the software parts is coding using the Arduino IDE program. The testing stage includes the feasibility and the accuracy test of the instrument. This instrument show good performance for soil conductivity and soil pH measurement with an accuracy rate of 91.24%. Hopefully this research can help related parties to identify peatlands damage easily and accurately.

Keywords: arduino uno, conductivity, pH, soil, peatlands



Promoting Tropical Peat Conservation through Biology Learning (Preliminary Research)

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ABSTRACT

Peat is an ecosystem dominates the eastern coast areas of Jambi Province. The integration of peat materials in learning biology in schools is expected to encourage the wise use of the peat thus maintains various their ecological functions, especially to maintaining carbon stocks and sustaining the hydrological cycle of the surrounding environment. This study aims to determine the knowledge and perceptions of high school biology teachers in East Tajung Jabung Regency regarding the peat ecosystem. Data collection was carried out through questionnaires, focused discussions, and in-depth interviews with biology teachers in the district. The data and information obtained are then synthesized to develop learning tools that integrate peat-related material on relevant topics. Most biology teachers already have positive perceptions about peat. However, their knowledge about peat, is still relatively low (53 out of 100). The low scores are mainly for aspects related to peat conservation. A small part of the teachers (30%) have integrated peatland materials in learning, but it is merely limited to provide their students example of animals and plants commonly found in peatlands. Referring to the national school curriculum, peat material can be integrated in biology learning, especially in grade 10, covering subjects of biodiversity, ecology, and environmental change (waste recycling). The biology teachers need training and mentoring not only to deepen their knowledge about peat, but also to insert peat subject to deliver a joyful and meaningful biology learning.

Keywords: biology learning, material integration, peat conservation.



The Effectiveness of Online Game on Students Vocabulary Enrichment

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ABSTRACT

This article tells readers about the effectiveness of using online game on students' English vocabulary enrichment. This is a quasi-experimental research which gives different treatment to experimental class and control class. Online game was used in the experimental class and conventional teaching media was used in the control class. The populations of the study were all the second semester students of non-English Department of the Faculty of Teacher Training and Education, University of Jambi. The samples were taken by using cluster sampling technique. Test and non-test were used as the instruments of collecting data. The results of the study show that: (1) the students who were taught by using online game had better result on English vocabulary enrichment than the students who were taught by using conventional teaching media. (2) The students who were taught by using online game gave positive response to online game as a various media in learning English vocabulary, so this media can motivate the students for learning vocabulary in the class and out of the class.

Keywords: Effectiveness, Online Game, Vocabulary Enrichment



Analysis Of The Implementation Of Psak 71 In Regional Development Banks

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ABSRACT

The purpose of this research is to analyze the application of Financial Accounting Standard Statement (PSAK) 71 at Regional Development Banks (BPD). PSAK 71 will only be implemented by financial institutions in Indonesia by 2020. With the implementation of this PSAK, banks, including BPDs, must take steps to anticipate the impact of the application of the PSAK. This research method is a quantitative descriptive analysis based on data from bank financial reports. The data to be used in this research is the financial report data of all BPDs, namely 27 (twenty seven) banks. Based on the results of data analysis, it appears that almost all BPD have experienced an increase in the value of Allowance for Impairment Losses (CKPN). One of the reasons for the high CKPN rate was the enactment of PSAK 71 which assesses CKPN since the credit was disbursed. In analyzing this data, researchers saw a change in the trend of increasing CKPN which was not only due to the application of PSAK 71, but because of the Covid-19 Pandemic. Many businesses have experienced a decline in sales, and have an impact on the ability to pay bank credit, so that it becomes bad credit for banks, and will further increase the bank's CKPN. This research is also influenced by the fact that OJK has issued the OJK Economic Stimulus in the Financial Services Sector as an Anticipation of the Impact of the Corona Virus As of March 20, 2020.

Keywords: PSAK 71, CKPN, OJK, and Financial Stimulus



Study of Antiseptic Activities of Jambi Traditional Medicine Plant as a Natural Hand Sanitizer Alternative

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ABSTRACT

The continuous use of synthetic antiseptics in addition to killing fungi, viruses, and bacteria, can also accelerate the emergence of resistant pathogenic races. It can also cause the death of normal flora. In this regard, it has encouraged researchers to look for alternatives to control fungi, viruses, and bacteria not from synthetics but natural materials. So far, many types of plants have been used by the tribes in Jambi Province as medicines and antiseptics. The problem is that until now there has been no clear identification of the names of these types of plants and their scientific properties or activities. The purpose of this study was to determine the number and types of antiseptic medicinal plants used by the tribes in Jambi Province. The methods used are surveys, interviews, sampling, identification of plant species, preparation, extraction, phytochemical screening, and testing of plant antibiotic activity in the laboratory. Our findings indicate that one of the medicinal plants used by the community is antiseptic is Jeruju (Achantus. Ilicifolius). Phytochemical test results of the ethanol extract of A. ilicifolius leaves contain flavonoids, triterpenoids, alkaloids, saponins, tannins. Antibacterial activity test against isolates from methanol extract showed a good enough activity against *E. coli* and *S. aureus*.

Keywords: Antiseptic, medicinal plants, jeruju, handsanitizer



Characterization Of The Ethanol Extract Of Arabica Coffee (Coffea Arabica), Robusta (Coffea Canephora), And Liberica (Coffea Liberica)

Jambi Which Potential As An Antibiotic

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ABSTRACT

The continuous use of synthetic antibiotics will not only kill bacteria but also can accelerate the emergence of resistant pathogenic races. In addition, it can also cause the death of normal flora. Coffee extract is reported to have the potential as a naturally active and non-toxic antibacterial compound suitable for biomedical applications. Extraction using methanol was carried out on green coffee and which had been roasted for three types of Jambi coffee, namely Arabica, Robusta and Liberica coffee and continued with fractionation using hexane and ethyl acetate. The results of the analysis using FTIR showed that OH, C-H, C = C, C = O, C-O, C-N, and N-H groups were detected. These functional groups are probably the functional groups that belong to caffeine, trigonelline, nicotinic acid, and dehydrocafestol, which are believed to have bacteriostatic effects on some bacteria. The SEM-EDX analysis results of the three types of coffee showed that the dominant elements were O, K, and Mg. Potassium and magnesium minerals bind with chlorogenic acid to form salt complexes of chlorogenic acid and magnesium chlorogenic acid complex. Furthermore, further characterization and tests are needed to confirm the antibiotic potency of the Arabica, Robusta, and Liberika coffee ethanol extracts.

Keyword: ethanol, arabica, robusta, liberica, antibiotic



Uncertainty In The Management Of Tropical Peatlands For Oil Palm Plantations, As A Consequence Of Drainage Practices

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ABSTRACT

The conversion of tropical peatlands to the oil palm plantations have effected loses land from previously stable long-term storage for water and carbon, resulting in land subsidence which reduces the carrying capacity of water storage and carbon stocks. The purpose of this subsidence study is to assess the results of previous observations that have lasted a long time (2004-2009-2020), in order to obtain an appropriate water management measure for the 3 scenarios of drainage depth built in oil palm plantations. We present the results of a recent long-scale comparative study (28 years) on oil palm plantations on peatlands in Jambi, and compare these findings with previous studies. The results show that the reduction is quite variable depending on the level of drainage depth (deep drainage, moderate drainage, and shallow drainage). The subsidence in the period 2004 to 2020 was found to be 55 cm (deep drainage), moderate drainage 49 cm, and shallow drainage 34.7 cm. Observations were made after the drainage was opened for 10 years (1992), on peatlands with a depth of 6-10 m on oil palm plantations in Jambi. The relationship with the depth of the water level shows that land subsidence is still quite large even at the highest level of land surface, theoretically it is still debated in plantations, namely government regulations (PP.71 2014 and PP.57 2016) which require a maximum of 40 cm. This implies that better water management will reduce the impact of peatlands degradation, relative to current conditions, and that high rates of land subsidence should be accepted as an inevitable change from conversion of tropical peatlands to oil palm plantations. More than 28 years of peatlands, the decline in peat surface was caused by drainage practices so that the peat oxidation was out of control. Differences in the water level depth, plant cover, fertilizer application for oil palm, and affect oxidation, will accelerate the percentage of subsidence.

Keywords: subsidence, drainage, oil palm, peatlands, water level



Characterization of Compost of the Combination of Agricultural Waste, Animal Waste and Biochar and Its Effect On The Productivity of an Acid Mineral Soil

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ABSTRACT

Background: Soil organic matter management has become a major requirement nowadays in maintaining soil quality and crop production. The continuous use of synthetic fertilizers in increasing soil fertility often causes a decrease in soil quality due to a decrease in soil organic matter. Objectives: This study aimed to (i) obtain organic manures, good quality compost from various combinations of agricultural waste (banana peel), livestock waste (cow dung and poultry litter) and biochar, and (ii) evaluate the role of compost in substituting and / or reduce the use of synthetic fertilizers for improving soil productivity. Methods: The experiment used a randomized block design with a factorial pattern. The first factor was compost consisting of several compost combinations with a dose of 10 tons/ha, namely (i) banana peel + cow dung, (ii) banana peel + poultry litter, (iii) banana peel + cow dung + biochar and (iv) banana peel + poultry litter + biochar. The second factor was synthetic fertilizers with a dose of ½ recommendation and full recommendation (50 kg / ha Urea, 200 kg / ha SP-36 and 150 kg/ha KCl). The field experiment with soybean as an indicator crop was done on an Ultisol at the Research Farm, Jambi University from June to September 2020.

Results: The results showed that the compost was alkaline with a pH of 9.50-9.80, 20.88-28.05% organic C, 2.03-2.39% N, 1.24-1.89% P, 0.40-0.87% K, 0.07-0.1% Ca and 0.01-0.07% Mg. The application of compost and fertilizers had no significant interaction on the soybean growth. The increase in soybean growth by 10-12%, 9-12% and 26-34% at the second, third and fourth week respectively after planting occurred with compost treatment, while the application of synthetic fertilizers did not show significant differences. Conclusions: These results indicated that compost contained significant nutrients and were more effective in increasing soybean growth compared to synthetic fertilizers.

Keyword: compost, Ultisol, soybean



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Development of functional drink Using Hibiscus Rosa-Sinensis Leaves

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ABSTRACT

This study aimed to develop functional drink based on Hibiscus rosa-sinensis and evaluate the chemical, and sensory properties. The functional drink was made in a traditional method using squeezed leaves water and then diluted to several concentrations. The experiment was carried out using a completely randomized design with 5 levels concentration of squeezed leaves water (5, 10, 15, 20 and 25% v / v). Results showed that there was no difference in preferences between concentrations and the 20% treatment concentration had the best value of various parameters. The DPPH radical scavenging activity in the 20% of squeezed leaves water were $34,90\pm1,85\%$; total phenolic content was $119,25\pm1,91$ mg-GAE/g and total tannin was $41,31\pm2,25$ mg-TAE/g. This study concludes that 20% of squeezed leaves water can be used to formulate an acceptable functional drink from Hibiscus Rosa-Sinensis Leaves.

Keywords: Antioxidant, Hibiscus rosa-sinensis, Functional drink.



Profiling Intercultural Communication As Global Competence For Indonesian University Students

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ABSTRACT

The skill of Intercultural Communication is needed in today's global world. This is due to the development of digital communication and easy movement of people across the globe that increase the chances of people to meet and interact with others who are coming from different spheres of the world. By being familiar and owning Intercultural Communication competence, one would be able to communicate and to behave appropriately based on the conversation context and can achieve the goal of the interaction effectively. In similar vein, university students as the member of academic society are also crucial to be introduced to the concept of Intercultural Communication and the skills entailed within since they frequently interact with cultural other students and lecturers who have different background. Thus, this paper seeks to explores the components of Intercultural Competence as part of intercultural communication of students and alumni from Faculty of Education and Teacher Training at Universitas Jambi. The data of this research are from FGD with lecturers and from document study of Faculty curriculum regarding what contributes to graduate competences. Data show that there are several skills in Intercultural Communication that are important to be discussed and practiced such as politeness issue, concept of cultures, and culture dimension. It is also found that the need of intercultural sensitivity to be encouraged, for example students' abilities to recognize their own and others' cultural values. Finally, after the components of Intercultural Communication for university students are identified, the finding can provide information for further development such as teaching instruments and assessment method in order to achieve the profile.



Optimization Of Mannanase Enzymes Production From Bacillus Cereus V9 Using Local Mannan Substrate

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ABSTRACT

Bacillus cereus V9 is a mannanolytic bacteria capable of producing a mannanase enzyme of 29.5 IU / mL with a substrate of Locust bean gun (LBG). The use of LBG as a substrate in the production of the enzyme mannanase is not recommended because it is expensive so that the enzyme produced will be expensive. The use of local mannan substrate such as porang, coconut pulp, coconut cake, and palm kernel meal has the opportunity to replace LBG because the mannan content is almost equal to the content of the mannan LBG so the resulting enzyme is cheaper. This study aims to determine the best local mannan biomass substrate as a substitute for LBG for the production of the mannanase enzyme from Bacillus cereus V9 bacteria. This study consisted of two stages where the first stage was the optimization of the production of mannanase enzymes in various alternative substrates for LBG, then the second stage was the production of the enzyme mannanase from the selected substrate as a substitute for LBG. Simple data analysis is based on calculating the number and average of each observation from 4 replications and the data is displayed in the form of a descriptive narrative. The results showed that Bacillus cereus V9 could grow on all local mannan media and the highest was on palm kernel meal media. The growth of *Bacillus cereus* V9 at a substrate concentration of 1% palm kernel meal did not differ from a concentration of 1.5% and 2%. The activity of the mannanase enzyme Bacillus cereus V9 in palm kernel meal media was higher when compared to porang, coconut cake, and coconut dregs. The conclusion of this study is that palm kernel meal can be used as a 1% substrate as a substitute for locust bean gum in the production of the enzyme mannanase from Bacillus cereus V9.

Keywords: palm kernel meal, porang, coconut dregs, coconut cake, Locus bean gum, Bacillus cereus V9, mannanase, glucomannan



Analysis Of Vegetation Density And Land Surface Temperature Using Landsat Image In The Forest Area Of Kphp Unit Xii Batanghari

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ABSTRACT

Climate change is caused by global warming due to human activities that contribute to greenhouse gas (GHG) emissions. Land-based human activities result in changes in dense vegetation, especially forest stands to land cover with low vegetation density (non-forest). Changes in land cover cause changes in surface temperature and humidity conditions. The forest area in KPHP Unit XII Batanghari has undergone significant changes in land cover over the last twenty years. This study aimed to analyze the spatial distribution of vegetation density (NDVI) and land surface temperature (LST) using remote sensing data and in this study, Landsat 8 satellite imagery was assessed. Landsat images have two thermal bands and they can be analyzed to obtain information about the existing land surface temperature at the time when the earth being scanned. The results showed that the vegetation density index or NDVI ranged from 0.132 to 0.866. The higher the NDVI value, the higher the vegetation density. The value of LST in KPHP Unit XII Batanghari varied, with a range of LST with a low temperature value of 18-25°C, where low temperatures have land cover classes in the form of secondary forest and other vegetated areas such as plantations and agriculture. Meanwhile, high temperature values are areas with open or non-vegetated land cover classes with a temperature range of 28-52 ° C.

Keywords: forest management unit, NDVI, LST, Landsat Image



A blended learning strategy to improve students' listening skill

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ABSTRACT

This paper reports the research study designed to improve students' listening skills through a blended learning strategy. The data were collected through listening achievement tests, questionnaires, field notes, and observation. The research conducted in an English language teaching department at Universitas Jambi, comprised nine weekly-based interventions that involved planning, action, observation, and reflection. Blended learning strategy is a process of teaching listening with a combination of in-class and out-of class activities to set up strategies to help students to improve their listening ability. The result of the study showed that, generally, most of the students could follow the blended learning strategy implemented, especially after the first stage. The questionnaire indicated students' gave positive perceptions on each of the elements of the questionnaire across the stages. The results obtained from observation proved that students participated actively in the implementation of this strategy, and the percentage of participation increased across the stages.

Keywords: listening strategy; listening skills; English-language teaching in Indonesia



The Effect of Credit on Entrepreneurship and the Performance of Micro, Small and Medium Enterprises in Jambi Province

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ABSTRACT

The purposes of the research are: 1) to analyze the effect of Micro, Small and Medium Enterprises credit on entrepreneurship, 2) to analyze the effect of Micro, Small and Medium Enterprises credit on business performance, 3) to analyze the effect of entrepreneurship on Micro, Small and Medium Enterprises performance, 4) to analyze the indirect effect of Micro, Small and Medium Enterprises credit on MSME performance through entrepreneurship in Jambi Province. Research location in Jambi Province with total respondents are 276, who were selected based on regional representation. The Sample technique uses Purposive random sampling. The data analyzed by descriptive analysis and PLS-SEM analysis. The results showed; 1) Micro, Small and Medium Enterprises credit has a positive and significant effect on entrepreneurship, 2) credit has a positive and significant effect on the performance of micro, small and medium enterprises. 3) credit has a positive and significant effect on the performance of micro, small and medium enterprises. 4) The influence of entrepreneurship on the performance of micro, small and medium enterprises shows a positive and significant value.

Keywords: Micro, Small and Medium Enterprises Credit, Entrepreneurship, Business Performance, PLS-SEM



Antioxidant Activity and Bioactive Components of Curry Leaves ((Murraya koenighii)) That Can Lower Red Meat Cholesterol: Identification and Chemical Content of curry leaves

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ABSTRACT

This study aims to identify and determine the chemical content of curry leaves according to their physiological phases. This research method is carried out experimentally. The number of leaves used for identification analysis was 50 leaves and came from different stems. The curry leaves used for chemical analysis come from 10 curry trees in Jambi City. Identification and chemical content were carried out on young, medium, old and mixed leaves. Leaf identification was carried out at the Laboratory of the Faculty of Animal Science, Jambi University, while the chemical content of leaves was carried out at the Animal Husbandry Research Institute, Ciawi, Bogor. The data collected includes leaf length and width, leaf and stem descriptions, chemical content of young, medium, old and mixed leaves. The data obtained were analyzed descriptively. The results showed that the young leaves had an average width and length of \pm 2 vs 3.5 cm, the medium leaves were \pm 2.5 vs 4 cm and the old leaves were \pm 2.7 vs 5.7 cm. Average dry matter content of young, medium, old and mixed leaves (26.78; 32.19; 36.47; 37.48), crude protein (4.57; 5.17; 5.81; 6.35), crude fat (0.27; 0.38; 0.40; 0.34), minerals (0.25; 0.33; 0.43; 0.29). The results of the study it can be concluded that the older the plant, the larger the leaf size and the increased protein and ash content while the fat content decreased.

Keywords: Curry leaves, identification, chemical content, leaf physiological phase.



Improvement Of Business Performance Through Strengthening Islamic Financial Literacy And Entrepreneurial Orientation Study On Women Enterprises In Jambi City

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ABSTRACT

Islamic financial literacy and entrepreneurial orientation are important factors needed by micro, small and medium enterprises (MSMEs) to run a business and achieve its performance. This study will examine the effect of Islamic financial literacy and entrepreneurial orientation on business performance. The research sample was Muslim women entrepreneurs in Jambi city, as many as 55 micro, small and medium enterprises, which were collected through questionnaires and interviews with purposive sampling method. Quantitative data analysis uses structural equation models with the Partial Least Square (PLS) approach. The results showed that for the questionnaire with objective questions, the majority of women entrepreneurs were able to answer correctly, but question about the financing simulation with the murabahah contract, more answered they did not know. Furthermore, the results of quantitative data analysis show that Islamic financial literacy and entrepreneurial orientation have a significant positive effect on the performance of women entrepreneurial businesses.

Keywords: Islamic Financial Literacy, Entrepreneurial Orientation, Business Performance, Muslim Women Entrepreneurs



Designing Translation Materials for 21st Century English Language Learners: A Theoretical Approach

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ABSTRACT

Background: This paper is a part of a larger study on the teaching of literary translation as a model of creative language teaching for 21st century English language learners in higher education. The field of translation studies has developed from its original area in applied linguistics to include intercultural communication, technology, and creative-entrepreneurship. Aims and Objectives: The purpose of this paper is to construct a model of translation materials that serve for encouraging creativity and and critical thinking, which are necessary components of 21st century learning. Methods: This theoretical study is carried out by cross-examining the concepts of translation teaching and training and current position of literary teaching in English language learning. Intersecting components were used as a basis to construct model of translation materials that are suitable for encouraging student-centered learning. Results: This paper suggests that translation materials constructed from literary and creative texts fulfill four learning components that are important in 21st century learning, i.e. offering flexibility in method-related choices, encouraging cross-cultural awareness, stimulating creativity, and encouraging collaboration. However, these types of materials are more suitable for advanced English learners as they stimulate knowledge and skills that are beyond structural functions of language. Conclusions: This study recommends that literary and creative texts-based translation materials are offered in advanced level of translation courses and directed to promote students' competence in analyzing and selecting the most appropriate translation choice among variations of acceptable approaches.

Keywords: Translation Studies, Translation Training, Materials Developments



Skills Mismatch Among Female Workers in Agricultural Labour Market in Jambi Province

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ABSTRACT

Background: Agricultural labour markets remain one of areas that see the lowest participation of women as skilled workers. In addition to low participation, women workers in this area are also commonly assigned to jobs that are not suitable or lower than their actual competences. This condition has brought a number of disadvantages to the career life of women workers. Aims and Objectives: This study aims to explore skills mismatch experienced by female workers in three agricultural companies in Jambi Provinces. The purpose is to uncover social and professional aspects contributing to these women's experiences. Methods: This study was carried out as a qualitative study. Research participants include seven female workers working in three agricultural companies in Jambi Province. Data were collected through individual interview and analyzed to identify issues raised in the research questions. Results: Based on the analysis, respondents' recorded experiences demonstrate different layers and definitions of skills mismatch in their works. Even though all the participants work in agricultural companies, their jobs are mainly related to administrative and financial matters. None of the seven participants are assigned to jobs that are suitable with their previous training in university. Yet, these participants express that they have no objections about the mismatch as they personally perceive that working in field and farm is not suitable for women. Recommendation: This study recommends the necessity of studying aspirations of current female students of agricultural department about their future career in agricultural industries as skills mismatch actually a condition that disadvantages female workers, in particular in relation to their career progress.

Keywords: Skills mismatch, female workers, agriculture.



Investigating Efl Teachers' Professional Knowledge Base For Teaching English In Indonesian School Contexts

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ABSTRACT

One crucial effort to build up the current issue of English language teaching in Indonesia school context is to prominently improve teachers 'knowledge base teaching, a set of skills that are developed during his teaching activity. This article attempt to explore how English teachers in Jambi Province interpret knowledge base teaching to be employed in their teaching practice. For more specific, this article aims to examine teachers' understanding on knowledge base teaching in term of figuring out what their teaching skills look like (in the process of teaching), what they deal with problems and difficulties in their work, and what they have learned to refresh or build up their knowledge base teaching skills. This research will also highlight the role of educational practitioners and institution to contribute to quality assurance for English teaching.

Keywords: Knowledge Base Teaching, English Teachers' Profession in Teaching



The Influence of Interpersonal Conflict, Social Norms, on Organizational Conflict and Occupational Stress of Lecturers

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ABSTRACT

Purpose - This research aims to examine the effect of Interpersonal Conflict, Social Norms, on Organizational Conflict and Occupational Stress by using the SEM (structural Equation Modeling) method in Lecturers in the University of Jambi. This research is part of a multi-year series of research to obtain ultimate outcomes in the form of conflict and stress management models, and their impact on the working atmosphere of lecturers who are safe, comfortable, safe and pleasant. Design / methodology / approach - The design of this study is causal comparative research that is characterized by a problem in the form of a causal relationship between two or more variables, using the explanatory survey method, to obtain precise and factual information about the influence of Interpersonal Conflict, Social Norms, on Organizational Conflict and Occupational Stress Lecturer. The unit of analysis was Lecturers from 59 study programs at Jambi University totaling 378 people. Data collection instruments using a questionnaire. The analysis technique uses the Structural Equation Model (SEM) method with an alternative method of Partial Least Square (PLS) or called Variance-based SEM (SEM-PLS). Structural model testing in PLS is done with the help of software lisrel_8.8.M3_win32.win32.x86. Findings - This study reveals that Interpersonal Conflict and Social Norms are predictors of Organizational Conflict. However, Social Norms and Organizational Conflict do not directly influence the increasing Occupational Stress of the Lecturer. The practical implication of this finding is that to control occupational stress, joint efforts are needed to minimize the emergence of interpersonal conflict, organizational conflict through structuring the work environment, maintaining climate and a conducive organizational culture and increasing the ability of office holders (lecturers) in managing stress. Originality /value - This research contributes to the literature on Conflict and Stress Management and provides strategic recommendations for university leaders and lecturers.

Keywords: Interpersonal Conflict, Social Norms, Organizational Conflict and Occupational Stress.



The Modification of Beef Cattle's Feces and Urine as The Source of Organic Fertilizer to Increase Sweet Corn's Productivity (Zea mays L.Sacc)

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ABSTRACT

Feces and urine from beef cattle are not yet fully optimized by farmers. If there is a modification process with the feces and urine, it can be a source of organic fertilizer. Other than helping farmers for their fertilizer needs and supply, it will also reducing environmental pollution. The purpose of this research is to understand feces and urine modification produced by beef cattle to increase the productivity of sweet corn's plant. Randomized Block Design (RBD) 7 treatments and 5 repetition groups were being used in this research. P0 (without fertilizer), P1(1 NPK),P2(34NPK),P3(34NPK+ 1/2Organic),P4 (34 NPK+ 1 organic), P5 (34NPK+ 1/2 Organic),P6 (1 NPK + 1 organic). Variable being observed consisted of: growth power (%), fruit weight (g), sweet corn production (ton ha⁻¹), and sweet corn waste production (ton ha⁻¹) 1). Data obtained were being analyzed by an analysis of variance and Duncan's test. The results showed that the growing power of P3, P4, P5, and P6 applications were higher (P < 0.05) than P2 and P1, the fruit weights of P5 applications were greater (P < 0.05) than P3, P2, P1, and P0, and fruit weight from applications P1, P2, P3, and P4 were not significantly different (P < 0.05). Likewise, the application of P4, P5, and P6, the result of fruit weights was not significantly different (P < 0.05). The production of sweet corn from P3, P4, P5, P6 applications was higher (P < 0.05) than applications P0, P1, and P2. The highest production of sweet corn waste was obtained from the application of P4 and P5 and the lowest was in the application of P0 (P <0.05), between P4 and P5 the production of sweet corn waste were not significantly different (P> 0.05). Productivity of sweet corn (Zea mays L. Sacc) through the application of modified beef cattle feces and urine with a combination (34NPK + 1½ Organic) on sweet corn (Zea mays L. Sacc) land increased as seen from the growing power, fruit weight, Sweet Corn production (Zea mays L. Sacc.), and sweet corn waste (Zea mays L. Sacc.)

Keyword: Productivity, Organic Fertilizer, Modification, Sweet Corn



Vegetable Management and Product Diversification: Solutions for vegetable farmers and processed vegetable MSMEs in the face of the new normal covid-19

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ABSTRACT

This service aims to prepare the community's economic independence through entrepreneurship training, vegetable business management and processing while still implementing the Covid-19 health protocol. Since the Covid-19 pandemic, vegetable farmers and MSMEs have been completely affected by their business performance. Most of the turnover decreased and some stopped their business, including the women farmer group MSME residing in RT.35 Kelurahan Paal Merah. Meanwhile, vegetable farmers tend to have lower yields in selling prices and at the same time face hydroponic vegetable competitors. Changes in people's consumption patterns and references to food and vegetables since the Covid-19 pandemic are factors causing the decline in turnover of vegetable farmers and the cessation of MSME production. In the current New Normal period, people tend to prefer hygienic foods, increase body resistance (immunity), hydroponic vegetables and vegetables / herbal leaves. Collaboration and professional management through product diversification is a priority to be carried out in an effort to improve the welfare and independence of vegetable farmers and vegetable processed MSMEs during the New Normal Covid-19 period. Currently, the program has a positive impact on increasing the income of farmers and their families. Crops are sold at economical prices, additional income from educational tours of vegetable picking and culinary delights.

Keywords: Vegetable fosters, Micro Small Medium Enterprises (MSME), Covid-19



Chemical Study Of The Ethanol Extract Of Arabica Coffee (Coffea Arabica), Robusta (Coffea Canephora), And Liberica (Coffea Liberica)
Jambi That Has The Potential Antiaging Activity

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ABSTRACT

Aging is a process that cannot be avoided. Coffee contains active substances such as chlorogenic acid, proanthocyanidin, quinic acid, and ferulic acid which work to inhibit oxidation by reacting with reactive free radicals to form relatively stable unreactive free radicals that may be useful in slowing down the aging process. Fractionation was carried out on the methanol extract of green coffee powder and the roasted types of Robusta, Liberika, and Arabica using hexane and ethyl acetate and continued with the isolation stage of active compounds thought to be active as anti-aging. The results of LCMS analysis on the ethanol extract showed that Robusta, Liberika, and Arabica coffee grounds contained compounds which were thought to have antiaging activity, namely caffeine, trigonelline, nicotinic acid, chlorogenic acid, n-methylperidium, and quinic acid. However, further studies are needed to confirm the antiaging potential of the ethanol extracts of Robusta, Liberika, and Arabica coffee grounds.



An Application of Foster Fruit Management for the economic independence of the people of Lubuk Beringin, Bathin III Ulu District, Bungo Regency, Jambi Province

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ABSTRACT

This service aims to prepare the community's economic independence through business management training for the foster fruit tree program and preparation for the legality of the partnership, in order to bring together people who own land and have not yet planted (utilized) with fruit tree caretakers as partners, through legally agreed contractual agreements by the parties. The Village Forest Work Plan (RKHD) and the Village Forest Annual Plan (RTHD) for Lubuk Beringin Village have entered their 10th year, but there have been no activities to realize the plan, namely planting fruit on the left and right of the road to the village forest area. Government assistance to provide seedlings has been given to residents, but the program has not been successful. Therefore, the villagers who have land, should be involved in a mentoring program and business management training. It is hoped that this training can be used to create economic independence and welfare for the people of Lubuk Beringin. The foster fruit program is a priority to be carried out in an effort to improve the welfare and independence of Lubuk Beringin's people.

Keywords: Business management, foster fruit tree program, welfare.



Chemical Properties of Ground Red Chili Processing Based on Dihydrocapsaicin

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ABSTRACT

The objective of this research was to determine the effect of heating process of ground red chili based on the chemical properties of dihydrocapsaicin. Research was conducted on using a completely randomized design of ground red chili processed at different temperature of 70°C, 75°C, 80°C, 85°C and 90°C for 10 minutes. Extraction of dihydrocapsaicin was done using ethanol as solvent, while high liquid chromatography (HPLC) was used for separation, identification and quantitation of the components. Result showed that processing temperatures affected the chemical properties of ground red chili based on dihydrocapsaicin content, moisture and vitamin C. The processing ground red chili processed at temperature of 90°C resulted in the highest dihydrocapsaicin content, moisture and vitamin C of 62.91 $\mu g/g$, 73.01%, and 94.6 mg/100g respectively. The temperature of ground red chili processing affected properties of dihydrocapsaicin, moisture and vitamin C.

Keywords: ground red chili, processing, heating temperature, dihydrocapsaicin, vitamin C



Citotoxicity Effect of Durian Mesocarpium Extracts (Durio zibethinus Linn) to the T47D cells line In Vitro

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ABSTRACT

Cancer is one of several diseases with high prevalence and is the second cause of death in the world. Cancer is characterized by abnormal cell development due to rapid proliferation. Various kinds of medical therapy have been developed, but it is also necessary to do companion therapy to increase the efficacy and minimize the side effects of chemotherapy agents. One effort was made to overcome these problems by utilizing natural ingredients as an alternative source of therapy and com-panion chemotherapy (co-chemotherapy). One of the plants that have the potential to be developed in the world of medicine is the durian plant (Durio zibethinus). Durian plants contain flavonoid class compounds, namely 7,8-dimethoxy-13,13-dimethyl-2,13-dihydro-3H-Pyrano [5,6-c] quinoline 2-one, which has anticancer activity.

Aims and Objective: This study aims to identify metabolite compounds that provide anticancer activi-ty and determine the activity of mesocarpium extract and fraction of durian mesocarpium (Durio zibethinus) against T47D cells in vitro.

Methods: This study was an experimental study with post only group design with variables consists of Independent variables: The series concentration of Durian Mesocarpium Ethanol Extracts (EEMD) Dependent variables: The percentages of T47D viability and death cells, IC50. Control variables: Cul-ture conditions, cell amount in each treatments, growth media and incubation time. This study was done using the MTT assay.

Results: The result showed that Durian Mesocarpium Ethanol Extracts (EEMD) has IC50 14.85 $\mu g/ml$ which can inhibited the cell viability up to 50% and has a strong activity.

Conclusion: Based on these results, Durian (Durio zibethinus Linn.) have potential effect as cytotoxic agents.

Keywords: Durian Mesocarpium, Ethanol Extracts, IC50



Cardiovascular Effect of Durian Mesocarpium Ethanol Extracts (*Durio zibethinus* Linn) on Acute Toxicity Study *In Vivo*

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ABSTRACT

Background: Durian (*Durio zibethinus* Linn.) has been shown to have cardiovascular effect on acute toxicity *in vivo*. Objective: This study aimed to determine the acute toxicity of the Durian Mesocarpium Ethanol Extracts (EEMD), various doses of Durian Mesocarpium Ethanol Extracts (EEMD) by examining in vivo to the healthy mices experimentally. The cardiovascular and toxic effects appeared in a short time after 24 hours by oral administrations of the dosages. Materials and Methods: This study used completely randomized design. The animals used in this study were mices (*Swiss Webster*), with criterias are healthy, male, and the range of the ages were 2 – 3 months with the body weight 20 – 30 g. The various dosages of Durian Mesocarpium Ethanol Extracts (EEMD) were divided into six experimental groups to determine the LD₅₀ there are K- (NaCMC); P1 (100 mg/KgBW); P2 (200 mg/KgBW); P3 (400 mg/KgBW); P4 (800 mg/KgBW); P5 (1600 mg/KgBW). Results: The result showed that Durian Mesocarpium Ethanol Extracts (EEMD) has LD₅₀ 400 mg/KgBW which included in moderate toxicity with cardiovascular effect like tremor which is one of type acute toxicity due to healthy mices. Conclusion: Based on these results, Durian (*Durio zibethinus* Linn.) have moderate toxicity after 24 hours oral administration dosages.

Keywords: Acute Toxicity, Cardiovascular effect, Durian Mesocarpium, Ethanol Extracts, LD_{50}



Paving Block From Residue of PS/LDPE/PP Plastic Pyrolysis Mixed With Palm Oil Bottom Ash

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ABSTRACT

The residue of plastic mixture pyrolysis can be used for making paving blocks. Fibers in plastics can be used as an adhesive against other materials and can increase the strength of paving blocks. Palm oil bottom ash was added to replace the role of cement, which has the same content as cement, i.e. silica (Si). The purpose of this study was to see the effect of palm oil bottom ash and sand added on the residue of plastic mixture pyrolysis (i.e. PS/LDPE/PP) on the quality of paving blocks. The paving block as test object was made by combining two materials. The residue of plastic mixture pyrolysis and LDPE plastic melt were mixed with a mass ratio of 70:30% referred to as material I. Furthermore, palm oil bottom ash and sand were mixed with mass ratio of 100, 80, 60, 40, 20% referred to as material II. The ratio of ingredients I and II used were 1: 1. Testing of the quality of paving blocks includes a compressive strength test and a water absorption test. The test results showed that the ratio of PS/LDPE/PP mixture (33:33:33) had the compressive strength of 113.19 kg/cm² and the water absorption of 0.59% at ratio of palm oil bottom ash and sand at 20:80%. The addition of palm oil bottom ash can reduce the compressive strength of paving block. The LDPE content in residue can effect water absorption because its chemical structure properties. Therefore, a reduction in the amount of LDPE residue is needed to obtain optimal water absorption values in paving blocks along with the addition of palm oil bottom ash. Based on this compressive strength in this study and SNI 03-0691-1996, these paving blocks can be used for gardens.

Keywords: paving block; palm oil bottom ash; plastic waste; pyrolysis



Influence of Lecithin addition in the Physico-Chemical and Sensory attributes of Dark chocolate Bars from Jambi Province

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ABSTRACT

Chocolate quality can depend on many factors such as climatic factors, fermentation, handling conditions after the harvesting phase and processing technology. Lecithin as emulsifier usually added in chocolate processing as one of treatment factors could affect the quality of chocolate produced. This study was to determine the effect of application lecithin in the physico-chemical and sensory properties of dark chocolate bar from Jambi Province. It was observed that the application of lecithin influenced the physico-chemical and sensory properties of dark chocolate bar. Research design used was randomized complete design with 5 combination of treatments which are 0.1%, 0.2%, 0.3%, and 0.4% of lecithin concentration with 3 replicates. The results shows lecithin concentration have a significant effects on stability test, antioxidant activity, sensory and colour changed. Based on the results 0,3% of lecithin concentration more preferred by consumers and followed by 0.4% of lecithin

Keywords: dark chocolate quality, dark chocolate processing, antioxidant activity, dark chocolate bars, Lecithin addition



The Analysis of Supply Chain Of Arabica Coffee In Kerinci Regency Jambi Provinci

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ABSTRACT

The largest production of Arabica coffee in Jambi Province is in Kerinci Regency. The varieties and types of coffee grown are diverse, as well as variations in product, therefore it is necessary to analyze the supply chain of Arabica coffee. This study aims to describe the supply chain and analyze the performance of the supply chain for Arabica coffee in Kerinci Regency. The choice of research location in Kerinci Regency was carried out deliberately. The research was conducted in Gunung Tujuh District, Kayu Aro Barat District, and Kayu Aro District, on the grounds that it is the center of Arabica coffee in Kerinci Regency. The determination of farmer respondents was carried out using simple random sampling. Determination of merchant respondents (supply chain actors) using the Snowball Sampling method. Methods of data analysis using descriptive and quantitative analysis. The results showed that there were two supply chain models for kerinci arabica coffee. First, the supply chain model for specialty processed coffee and second, the supply chain model for conventional coffee. The flow of products in the supply chain moves from upstream to downstream, namely: from farmerscollectors/farmer groups/cooperatives-wholesalers-retailers-coffee shops-consumers. The flow of funds/money in the supply chain moves in two directions from downstream to upstream and from upstream to downstream with a cash and transfer payment system, the flow of information (price, quantity and quality) also moves in both directions, namely from upstream to downstream and from downstream to upstream. The performance of the Kerinci Arabica coffee supply chain is not yet optimal.

Keywords: Supply Chain, Performance and Arabica Coffee.



Histopathological Images of Placenta in Pre-Eclampsia

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ABSTRACT

Pre-eclampsia is a major cause of maternal and neonatal mortality and morbidity. Failure of trophoblast invasion results in impaired remodelling of the endometrial spiral arteries in the placenta leading to hypoxia. This hypoxic condition can trigger oxidative stress on the placenta and cause maternal pre-eclampsia. Hypoxia due to inadequate of spinal artery remodelling causes decidual arteriopathy. Impaired of spinal artery remodelling also causes injury in the intervillous space due to high velocity blood flow. This condition in the placenta can be observed through microscopic images. This study aim to determine the histopathological images of the placenta in pre-eclampsia. This research was observational analytic study. Preeclampsia was diagnosed by elevated blood pressure (systolic blood pressure ≥140 mmHg or diastolic blood pressure ≥90 mmHg) after 20 weeks of gestation. Human placental tissues were collected from 22 subjects pregnant women with pre-eclampsia and 3 subjects pregnant women without pre-eclampsia as controls. Full thickness placental tissues were collected immediately after delivery and fixed by formaldehyde 10%. Slides from medial and lateral placental tissue sections were stained with Haematoxylin Eosin. Haematoxylin Eosin slides were made in Biomolecular Laboratory Faculty of Medicine and Health Sciences Universitas Jambi. All placental tissue samples from pregnant women with pre-eclampsia showed the presence of decidual arteriopathy, hypoplasia of the distal villi which was characterized by increased intervillous space, intra and intervillous fibrin deposition and increased syncytial knotting due to malperfusion of the maternal vessels. In pregnant women without pre-eclampsia, placental morphological disorders were not found. The morphological abnormalities of the placental tissue is found dominant in the medial lateral part of the placenta. The histopathological images of placental tissue in pre-eclampsia patients show abnormal morphology of the placenta which indicates hypoxia due to inadequate remodelling of the spinal arteries.

Keywords: pre-eclampsia, placenta, hypoxia



Analysis of Income and Welfare of Liberica Coffee Farmers in Tanjung Jabung Barat Regency, Jambi Province

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ABSTRACT

The research objectives (1) to analyze the income and welfare of liberica coffee farmers, and (2) to analyze the influence of the factors that affect the income of liberica coffee farmers in Tanjung Jabung Barat Regency, Jambi Province. The study design was a cross sectional and was conducted in one selected districts in Jambi Province, namely Betara District. This research was done in six calendar months. The object of this research was farmers with research variables: (1) income and farm costs, and (2) welfare of liberica coffee farmers. Data was collected by using observation, direct interviews, in-depth interviews, Focus Group Discussion (FGD), and documentation methods. The number of respondents was 35 farmers at each village which was chosen taken by cluster stratified simple random sampling in each sample village, the total sample was 105 farmers. Data were analyzed by descriptive and statistical tests using multiple regression tests. The results showed that the average level of income and welfare of liberica coffee farmers in the research area was high. The results of the analysis show that land area, price level, capital and production have a very significant positive effect on the income level of farmers, while the factors of plant age, farmer age, labor and number of family members do not show a significant effect.

Keywords: farm cost, income, liberica coffee, welfare.



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Characteristics of The Arthropod Community in Different Types of Management of Honey Pumpkin Plant (Cucurbita moschata Duch)

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ABSTRACT

This study aims to determine the characteristics of the Arthropod community in various types of agroecosystem management of honey pumpkin. The research was conducted at the Teaching and Research Farm, Experimental Garden, Pest Laboratory, Laboratory of Biological Agents, Faculty of Agriculture, Jambi University in April - September 2020. The study was conducted using a randomized block design (RBD) consisting of five treatments of pest control, namely: A) application of synthetic pesticides by calendar); B) application of synthetic pesticides by calendar and yellow adhesive traps; C) application of biopesticides and planting of refugia plants; D) biopesticide application, predatory application (Oecophylla smaragdina Fabricius) and refugia planting; E) application of biopesticides, predators, refugia planting and adhesive yellow traps. Each treatment was repeated 5 times in randomized groups. Observations were made on parameters: species and population abundance, Shannon-Wiener index (H'), evenness index (E), and Berger-Parker dominance index (d), Sorensen similarity index (I). The arthropod sample data was collected through; pit fall traps, sweeping net and sticky yellow traps when the plants were 20, 40, 60 and 80 days old. Data analysis was performed descriptively. The results showed that the H' and d index in agroecosystem treated by syntetic insecticide lower than H'in the agroecosystem treated by biopesticides, releasing of preadator, and planting of refugia. Otherwise d index in agroecosystem treated by syntetic insecticide higer than d index in the agroecosystem treated by biopesticides, releasing of preadator, and planting of refugia. Agroecosystem treated by biopesticides, releasing of preadator, and planting of refugia more stable than Agroecosystem treated by syntetic pesticides.

Keywords: Characteristics, arthropods, type, agroecosystem, honey pumpkin.



Development of Textbooks on Plant Structure Subjects at Contextual Based Material of Organum Nutritivum

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ABSTRACT

Plant Structure course is to study about the external characteristic of plant that have the specific term namely latin language. Lack of adequate textbooks is a major obstacle for students in learning that materials. Often students feel bored, because textbooks that are usually used the pictures of plants that are colorless. The purpose of this research is to develop a textbook that is more attractive and is equipped with pictures of plants that are contextual in nature. This research is an R & D research with a 4D model with the following stages: Define, Design, Develop, and Disseminate. At the design stage, an analysis of the problems faced by students was carried out, namely the inadequacy of the source books used and the solution was the development of contextual-based textbooks. Then develop it to see the feasibility of the expert appraisal and developmental testing. Validation of material experts has only been carried out once, with a score of 37.67 in the good category. The revision process is being carried out and is continued with phase II validation. After that proceed with validation from the design / media expert. After being declared feasible by the expert, it was continued with trials on biology education students.

Keyword: textbook, plant structure, contextual, organum nutritivum



Impact of Biochar and Compost as Soil Amendments to Improve Soil Physical Properties, Soybean Growth, and Yield in Ultisols

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ABSTRACT

Biochar is a charcoal biochar as a soil conditioner has recalcitrant properties, is more resistant to oxidation and is more stable in soil, and combination with compost to improve the soil properties. This research will test the effects of biochar amendment, compost, and their combination on soybean growth, yield, and soil physical characteristics in Ultisol. This research is arranged in a Randomized Block Design (RBD) with a factor of a combination of doses of biochar and compost. There are consisted of 6 treatments; no biochar and compost (B0); biochar 5 ton ha⁻¹ (B1), compost 5 ton ha⁻¹ (B2), biochar 5 ton ha⁻¹ + compost 5 ton ha⁻¹ (B3), biochar 10 ton ha⁻¹ (B4), biochar 10 ton ha⁻¹ + compost 5 ton ha⁻¹ (B5). Each treatment was repeated 4 times hence the number of experimental units became 24 units. The results showed that the addition of the biochar or compost alone or their combination significantly increased the contents of soil organic matter, porosity, percent of aggregate and aggregate stability, and decrease bulk density. Biochar and compost also increased plant height, pod numbers, and soybean yield. The results showed that the application of biochar with compost is a strategy for improving soil productivity and soil quality in Ultisol.

Keywords: acid soil; biochar; compost; physical properties; soybean; soil amandment



Preparation of Cellulose Nanofiber Hydrogels from Durian Peels (*Durio Zibethinus*)

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ABSTRACT

Durian peels contains various compounds which are classified into primary and secondary metabolite groups. Phytochemical test results showed durian skin contains tannins, alkaloids, triterpenoids and flavonoids. Cellulose fibers from durian peels (Durio zibethinus) are primary metabolites that have been isolated by delignification using 6% KOH solution for 12 hours, followed by a bleaching process using hypochlorite for 5 hours. Based on the test ADF NDF obtained fiber consist of 50.82% cellulose, 32.51% hemicellulose, and 11.14% lignin. Furthermore, nanofiber were isolated using mechanical treatment. The SEM image show that the size of obtained cellulose nanofibers are around \pm 65 nm. The cellulose nanofiber were formed into hydrogel using vacum filtration process and alkaline treatment. Hydrogel showed the stable form with high water absorption.

Keywords: Cellulose, cellulose nanofiber, hydrogel, alkaline treatment



Analysis of the Socio-Economic Conditions of Micro Small and Medium Enterprise to Development of Sustainable Tourism the Muaro Jambi Temple Area

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ABSTRACT

Background: Tourism plays an important role in the development of the global and national economy and community, especially in increasing income and achieving employment. Jambi Province has a well-known tourist destination, namely the Muaro Jambi Temple Area. This area has great potential to be developed with the aim of increasing regional income and the income of rural communities around the area.

Objectives: The study aims to: 1). Analyze socio-economic conditions; 2). Analyze the factors affecting of Micro Small and Medium Enterprises (MSMEs) income in the area of the Muaro Jambi Temple; 3). Compile and analyze a sustainable tourism development strategy for the Muaro Jambi temple area.

Methodology: This study uses primary data with descriptive and quantitative methods with multiple regression analysis tools. The sample size is 50 MSMEs. MSMEs data collection was done on July 26 - August 9, 2020.

Results: The results showed that most of the MSMEs in Muaro Jambi Temple Area is the culinary business/ selling food and drink with 21 respondents, Other businesses are transportation services, photography services, bike rental, selling souvenirs, tour guide, homestay, and rent out mats. MSMEs actors have an average age of 37 years, high school education, 40 respondents are married. 26 respondents establish in business 2014-2019 was, and 20 respondents average working hours were 253-302 hours per month.

Simultaneously the variables of operating capital, labor, length of business, hours of work, education, age and gender affect the income of MSMEs in the Muaro Jambi area. Partially the operating capital, working hours and education variables have a positive and significant effect on the income of MSMEs in the area of Muaro Jambi Temple. MSMEs expects tourism area managers to provide strategic business places, increase the number of attractions, many visitors, improve infrastructure, complete facilities, and promote tourism.

Keywords: Social-economy, income, MSMEs, Sustainable tourism.



Analysis of Education Staff Human Resources Quality

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ABSTRACT

Background: Human Resource Planning (HRP) is intended to estimate the quantity and quality requirements of the organization's HR in the future. An organization will not be able to maintain and develop its existence without the support of human resources in the right quantity and quality. Postgraduate program at Jambi University as one of the implementing programs of the Tri Dharma, namely education and teaching, research, and community service.

Objectives: This study aims to: 1). Identifying the current condition of the education staff's competence in the Postgraduate University of Jambi; 2). Analyzing the factors that affect the competence of education staff , and 3). Projecting the quantity and quality of education staff for the next 5 years.

Methodology: This study uses primary data with descriptive and quantitative methods with multiple regression analysis tools. The sample size is 67 person, all of the education staff at the Postgraduate University of Jambi. Primary data collection survey was conducted on 7 July - 7 August 2020.

Results: The results show that the average age 33 years, 64% undergraduate education (S1), 70% married. The average respondent, 60% start to work in Unja since 2015, and 63% start to work in Postgraduate during 2013-2017. The average employment status for 90% respondents is Non-PNS (non-civil servant/contract), 46% already work in a accordance with background/department and 76% already work in accordance with competence.

Simultaneously, the variables of education, work experience, age, work ethic, training that has been attended and social roles influence the competence of human resources education staff at the Postgraduate of Jambi University. Partially the work ethic and training variables that have been followed have a significant effect on the competency of education staff. For the future, Education staff expect an increase in welfare through adjustments to salaries and career paths in accordance with the length of service and provisions of civil servants.

Keywords: Human Resources Quality, Education staff, Competence, Postgraduate.



The Development of Information Systems in Documentation Management of Critical Care Nursing

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ABSTRACT

Intensive Care Unit (ICU) is one of the units in the hospital that clients receive intensive medical care and monitoring. There, nurses carry out the nursing care process. All steps in the process must be properly documented. Although nursing care documentation is very important for both patients and nurses, but in reality there are still many incomplete nursing care documentations. The nurses' awareness to completely fill the documents is still lack. Currently, many technological developments have been developed to support activities/work in various fields. one of them is the development of health information system, a nursing management system. So, this research aims to produce a product in the form of ICU nursing care documentation software that enable nurses in documenting their nursing care easier and well documented. The method used at this research is a product-oriented development model. The stages are: 1). Initiation System (initiation of the system), 2). Analysis System, 3). Design System and 4). Production that then tested through the prototype Black Box Testing. The research result shows that this software very useful because it shortens the time for preparing reports. Even this study uses students as research objects, nurses who work in the hospital also can use this software.

Keywords: Nursing; technology; information; documentation; critical care.



Model of Influence of Human Resources Competency and the Characteristics of Entrepreneurship towards the Performance of Middle Small Industries with Competitive Advantages as Intervening Variables

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ABSTRACT

The purpose of this study was to describe and analyze the influence of HR competencies and entrepreneurial characteristics on the performance of the small medium-sized food industry with the intervening variable competitive advantage. This research is verification in nature, basically wants to test the truth of a hypothesis which is carried out through data collection in the field. The unit of analysis in this research is the food SMIs actors in Jambi Province. The data were obtained through distributing questionnaires to 378 SMIs food entrepreneurs. The data were obtained through distributing questionnaires to 378 SMIs food entrepreneurs. To test the hypothesis, Structural Equation Modeling (SEM) is used with the AMOS application. The results of the analysis concluded that the respondents' responses to the variables of HR competence, entrepreneurial characteristics, competitive advantage and SMIs performance obtained the average number included in the good scale range. HR competency variables, entrepreneurial characteristics, competitive advantage significantly influence the performance of food SMIs in Jambi Province either partially or simultaneously. HR competency variables and entrepreneurial characteristics have a significant indirect effect on SMIs performance through the variable intervening competitive advantage. The entrepreneurial characteristic variable is the dominant variable affecting the SMIs performance. The research model by adding the competitive advantage variable as an intervening variable resulted in the finding of a better effect on the SMIs performance.

Keywords: HR competency, entrepreneurial characteristics, competitive advantage, SMIs performance



Analysis of Student Attitudes Toward Science: A Survey in Junior High School

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ABSTRACT

This study is to know the student's attitude and the solution of student's problem to science subject in junior high school, most important in Batanghari District. Quantitative and qualitative type is using in this research which is use survey procedure. The study involved 926 high school students in Batanghari District. Researcher uses questionnaires and interviews as the instrument. Results of the 4 indicators discussed in this paper are the indicator of social implication in science that is 54.3% good categorized students. The indicator of scientific normality is 58.3%. The indicator of attitude in the science investigation is 52.4% good category. Then on the indicator of scientific attitude's adoption is 74% well categorized.

Keywords: Attitude, Investigation, Junior High School, Science,



Developing English Learning Materials based on Youtube Combined with the Kinemaster Editing and PowerPoint Application for Non English Study Program Students at Universitas Jambi

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ABSTRACT

The aim of this research was to develop the English learning materials based on Youtube Combined with the Kinemaster Editing and PowerPoint Aplication for Non English Study Program Students at Universitas Jambi. This type of research is development research which is often also called Research and Development. This development research was conducted using the A-D-D-I-E framework (Analysis, Design, Development, Implementation and Evaluation). However, not all ADDIE stages will be implemented due to time constraints. This time the research will only reach the development stage in the form of product prototype validated by experts. While the Implementation and Evaluation phase is planned to be done next year. The data in this research consist of: (1) the process of developing teaching material which includes the reflection of the learning process of the "English" course, documentation, and the results of students' needs taken through online questionnaire; (2) results of interviews in limited trials; (3) results of observation of the teaching material implementation; (4) the results of the previous teaching material analysis, (5) the results of observations of student activities, (6) the results of the student questionnaire responses to the teaching material developed, (7) the results of the assessment from the validation expert team regarding the quality of the teaching materials developed. There were 35 students at the first semester who took the "English" course participated in this research. They answered the questionnaires that were distributed through online (online questionnaire surveys.)

Keywords: Developing, English, materials, Non, Students



Legal Reconstruction of Internship For Prospective Notary Notary Based on Legal Certainty

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ABSTRACT

The purpose of this paper is to discuss the principles and concepts of the reconstruction of internship laws in future notary regulations. This research was conducted with a normative juridical type with a conceptual approach, a statutory approach. The results showed that the legal regulation of internship in order to contain the principle of legal certainty must be regulated in a Ministerial Regulation related to the field of notary and not in conflict with higher level regulations. Internship must contain the principle of legal usefulness, meaning that it is beneficial for prospective notaries and also for the Advisory Notary Public. As an effort to increase knowledge and skills, the principle of notarial law skills is needed. The concept of internship regulations that need to be contained in a Ministerial Regulation includes: internship placement must go through formal procedures, an internship agreement, the length of time for internship cannot exceed the provisions of the law, the number of internship hours per day 4 hours within 5 days per week, types of internship activities, rights and the obligations of the prospective traineeship notary, the rights and obligations of the internship advisor, the responsibility of the traineeship notary, the responsibility of the notary supervisor, the party authorized to supervise the internship, the internship mechanism must be planned systematically, there is a need for evaluation of the results of the internship which is technical in nature and feedback on the evaluation internship reports, internship awards. As a conclusion, an internship regulationa is needed based on the principle of legal certainty and the principle of benefit. It is recommended that the government, through the competent Minister, should immediately make rules for internship for prospective notaries.

Keywords: Notary Based, legal, internship.



Quality of Notary Master Graduates For Alumni Users in Creative Work

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ABSTRACT

This writing aims: 1. To understand and analyze the quality of passing the Master of Notary in the perspective of a partnership relationship with service users; 2. To understand and analyze the quality of passing the Master of Notary in a work relationship perspective. As a theoretical basis in this paper is the theory of management education, theory of legal certainty, theory of professional code of ethics. This research was conducted using a normative juridical method, with a statutory, conceptual approach. The results showed: 1. The quality of passing the Notary Masters in the perspective of service user relations will be influenced by: the skills of the Notary Masters in making deeds with legal certainty; ethics with partners; fast service way to clients; punctuality of deeds, techniques for negotiating with clients. For Masters of Notary who work in Government Agencies and companies, it is necessary to pay attention to staffing discipline, skills in making agreements, skills in the field of information technology. 2. The quality of the Notary Masters of workers or employees needs to pay attention to work agreements, work protection regulated in labor law, human resource management and office management. As a conclusion in this paper, the quality of graduation from the Notary Masters from the user's perspective can be influenced by a harmonious relationship and skills between the Notary Masters and people who have a partnership relationship and with people who have a work relationship or employees.

Keywords: quality, master notary, service users.



Teacher's Strategies of Classroom Management for Effective Teaching in Online Learning During Covid 19

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ABSTRACT

This literature review study aims to explores how teacher's strategies of classroom management for the effectiveness teaching in online learning. The critical review of relevant studies on the professional teacher of apllied kind of strategies in online teaching practice during covid-19. In this review, the researchers present what literatures suggested and recommended in the area of teacher's strategies for effective teaching in junior high school in Jambi City during online learning. The relevant articles being reviewed were from Indonesian context as well as International context. This study hopefully can contribute to the betterment of teaching and learning practice during online learning that we know this is a new case in Indonesia especially Jambi City. The following topics are presented in order; teacher's strategies, classroom management, effective teaching. The domains and dimensions of teacher's strategies, classroom management, effective teaching, classroom interaction, online learning, and conclusion and suggestions.

Keywords: Teacher's strategies, classroom management, effective teaching, online learning



Profit Analysis of Garlic Seed Business in Jangkat Subdistrict Merangin Regency

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ABSTRACT

Garlic is an important commodity controlling inflation besides chilies, shallots, and CPO or cooking oil. In the last ten years, the import condition of horticultural products, especially garlic, has tended to increase by up to 95 percent. This study aims to examine whether the development of a garlic business within the framework of national garlic self-sufficiency in JangkatSubdistrict, Merangin Regency, is feasible, especially from a financial or financial aspect, so that it can become a recommendation material for the sustainability of garlic development in the research area. The research was conducted on 150 respondents. The results showed that most of the respondents did not understand the cultivation of garlic, the varieties of garlic planted in the study area were still less uniform and presumably not suitable with local agro-climatic conditions. From the short-term financial aspect, the R / C value is less than 1, as well as in the medium term, the NPV value is minus and the IRR is smaller than the social interest rate with B/C less than one so that the garlic seed breeding business in the research area is not feasible. From the physical condition, the appearance of onions is smaller and less clean than imported garlic, causing marketing problems. Garlic self-sufficiency can only be realized if some trials are carried out to select the most suitable variety in the research area so that the results are maximum.

Keywords: Business, Feasibility, Garlic, Jangkat



Development of Conceptual Understanding Test Instrument Based on Contextual

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ABSTRACT

This research is motivated by the importance of the test instrument as an evaluation tool for mastering the basic concepts of student physics. However, the instruments currently used are not sufficient for learning needs, such as identifying students' understanding of concepts, especially in fluid material. Therefore, to evaluate the level of understanding of the concept it is necessary to develop test instruments that can measure students' understanding of fluid concepts, one of which is by using a contextual approach. This study aims to develop a test instrument based on contextual to measure students' understanding of the concepts of physics, especially on fluid material. This study uses a 4D model that is modified to 3D. The research data were obtained from the results of the expert team validation test and the results of the empirical evaluation analysis. The data analysis technique was done in a descriptive quantitative manner. The products produced in this research development are 10 items of contextual-based concept understanding understanding test instruments including fluid material. Based on the results of empirical trials that have been carried out, the ten test instruments are declared valid and have high reliability reaching 0.69.

Keywords: Test Instrument, Concept Understanding, Contextual Approach, Fluid



Enhancing Students' Comprehension and Motivation through Digital Storytelling

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ABSTRACT

This paper aims to examine the impact of classroom-based projects in digital storytelling (DST) creation on students' comprehension and motivation. In the classroom project, the students is given task to create DST, a short video containing narration of learning material equipped with multimedia, images / video and sound within a duration of about 3 to 5 minutes. In this study, 33 undergraduate students of the Language Learning Strategy course participated in this study. They were divided into 12 small groups consisting 2 to 3 students. They were given task to create digital storytelling collaboratively. Each group creates a DST by choosing a topic that matches the learning syllabus. Likert scale questionnaires and in-depth interviews were conducted after the students completed their DST project for 3 weeks. The questionnaire was intended to measure student motivation and in-depth interviews were intended to qualitatively explore the impact of the DST in enhancing students' comprehension. The research results are discussed further.

Keywords: digital storytelling, motivation, course comprehension



The Analysis of Corporate Social Responsibility (Csr) Disclosure on Aggressive Tax and Its Impacts towards Investor Reactions

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ABSTRACT

The purpose of this study is to determine the effect of corporate social responsibility toward tax aggressiveness and how the impact of corporate social responsibility disclosure and tax aggressiveness toward investor reactions. The population in this study was the manufacturing companies listed on the Stock Exchange in 2016 until 2018. The sample was collected by the purposive sampling method and obtained from 147 companies. The method of analysis which is used is path analysis. The result of this study concluded that corporate social responsibility negatively affects tax aggressiveness, tax aggressive have a significant influence on the investor.

Keywords: Corporate social responsibility, tax aggressiveness, company size, profitability, reaction of the investor, leverage level.



The Analysis of Carbon Emissions Disclosure To Investor Reactions

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ABSTRACT

The purpose of this research was to analyse the influence of company size, leverage level, and profitability on carbon emission disclosure and its impact on the reaction of investors. The population of this research was 75 Manufacturing Companies Listed in the Indonesian Stock Exchange in 2016-2018. The sample was collected using a purposive sampling method. The data were analysed using multiple linear regression and simple linear regression analysis. This research also indicated that company size, leverage level, and profitability influence the carbon emission disclosure simultaneously. Partially company size and profitability positively affects carbon emission disclosure. The relation between company size, leverage level, and profitability with the level of carbon emission disclosure is included in the medium category. The carbon emission disclosure also has no significant effect on the reaction of the investor.

Keywords: Company size, carbon emission disclosure, profitability, reaction of the investor, leverage level.



Palm Oil Fuel Ash (POFA) as an Innovative Material for Arsenic Removal from Mining Effluent

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ABSTRACT

Arsenic is toxic element, accumulate in the environment as main contaminant in aqueous waste stream. This study aims to analyze the capability of raw palm oil fuel ash (pofa) as a potential adsorbent to remove arsenic contamination in wastewater of mining effluent. Technology applied in this study was adsorption. The maximum arsenic removal percentage of 100 % and a maximum adsorption capacity up to 0.224 mg/g was discovered. The results indicate that the method for arsenic removal from wastewater using raw pofa was effective, simple and low-cost to apply.

Keywords: adsorption, agricultural waste, mercury removal, palm oil fuel ash (pofa)



Cocoa Butter Substitute (Cbs) Production by Mixing the Fraction of Palm Kernel Stearin with Tengkawang Fat

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ABSRACT

In the chocolate and confectionary industry, there are several types of alternative fats to replace cocoa butter (CB), including cocoa butter substitute (CBS). CBS is a CB substitute fat derived from lauric fat, namely coconut oil (CNO) or palm kernel oil (PKO) which is modified physically (fractionated) or chemically (hydrogenation and interesterification). The most suitable part of PKO for making CBS is the stearin fraction (PKOs) which has an iod value (IV) of 5-7. Fractionation PKO at 19oC for 210 minutes produced 42% of PKOs with IV 5-7. PKOs were then blended with tengkawang fat (LT) with 5 levels of comparison (PKOs:LT), namely (70:30), (60:40), (50:50), (40:60), and (30:70) to saw the CBS characteristics. The parameters observed were melting point, solid fat content profile (SFC), and organoleptic properties of CBS (color, taste, and overall acceptance). The study was arranged in a completely randomized design with 3 replications. Variance analysis was carried out to see whether there were differences between treatments. Furthermore, to find out the best treatment, a further test was carried out using DNMRT at the 5% level. The results showed that the ratio (PKOs: LT) greatly influenced the characteristics of the CBS produced. In compositions with the amount of PKOs equal to or slightly more than LT, the resulting CBS melting point and SFC profile were closer to the melting point and SFC profile of CB. Thus it could be concluded that to produce CBS with a profile that has the closest physical properties to CB could be obtained from blending PKOs with LT in the ratio (50:50) or (40:60).

Keywords: blending fat, cocoa butter substitutes, exotic fat, fat practionation, tengkawang



Survival Rate of Rehabilitation Plants after Peat Fire: Analysis of Plants Amount, Resprouting Frequency, and Effectiveness of Canal Blocking

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ABSTRACT

Recurrent fires in peatlands and forests have lost their function as the world's lungs. Degraded peatlands leave weeds and shrubs so the rehabilitation is needed to restore their function as carbon sequestration and carbon storage. Forest and peatland fires in 2019 at Tahura Orang Kayo Hitam scorched almost the entire area, including the 3 years old plants in rehabilitation plot. The interesting thing is that there are species of rehabilitated plants that survive after a severe fire and start resprouting. The surviving plants tended to be in the area near the canal but it has not been studied further how big the correlation is. Canal blocks construction seems to have a role in soil moisture which affects the survival capacity of plants. Plots were made systematically in the area along the canal to collect data of surviving species, their plants amount, and the resprouting frequency. Data on the effectiveness of canal blocking was carried out by observing the water level of the ground by drilling peat at points near or far from the canal. Generally, the plants with the highest survival rate were Gelam (69.93%), followed by Pulai rawa (68.89%) and the lowest was Jelutung (44.13%). Furthermore, the resprouting frequency of plants was 66.67% for Pulai rawa, 24.44% for Gelam, and 20% for Jelutung. Canal blocking effect on peat water level is still being investigated. During the research, the rainfall was still high so that the water level as far as 50 meters from the edge of the canal was still the same (0 - 10 cm). Research continues until the dry season to examine more deeply the affectivity of canal blocks on water availability in peat.

Keywords: Peat, rehabilitation, survival rate, resprouting



The Role of the Principal as an Educator In Managing the School

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ABSTRACT

The progress of a school really depends on the ability of the principal to lead the school. The purpose of this study was to describe the role of the principal as an educator in an effort to advance the school at the Surya Ibu Thehok Vocational High School (SMK) Jambi. Using qualitative methods, data collection uses observation, interview, and documentation techniques. Technical analysis of data using displays, reduction, and conclusions. Checking the validity of the data using triangulation. The research subjects consisted of the principal, deputy principal, several teachers, head of administration, and administrative staff. The results showed that the role of the principal as an educator was as follows: 1) Completing teaching preparation. 2) Teaching in class. 3) Providing an example as a good teacher. 4) Maintaining closeness with students. Based on the research results, it can be concluded that the principal has tried to carry out his function as an educator in an effort to advance the school.

Keywords: Principal, Educator, School



Identification of Understanding Factors for Women in Facing the Position and Its Impact on the Social Economic Conditions of the Community during Covid-19 Pandemic in Jambi City

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ABSTRACT

Women's involvement in the public sector is considered to be a new phenomenon compared to women's involvement in the domestic sector. The involvement of women is seen from the disproportionate number of women in the public sector, even though the number of workers in the public sector is more (69%) than men. This research aims to 1). Analyze the boundaries of women who stand in certain positions in Jambi City, 2). Analyze what factors determine the government and private organizations in Jambi City, 3). Determine what factors concern for women occupy in certain positions, 4). How socio-economic effects the society as a result of women occupy positions in government and private organizations in Jambi City. The research method was survey data with directed interviews to 88 respondents. The analytical tool used the Structural Equation Model and PLS (Partial Least Square) program. The results of the research showed that 23 percent women ranked as teachers or lecturers both in private sector and government intitution, while amout of 44 percent women exist in government organizations and these women are at the level of productive age. The variables of education level, motivation, courage, experience, and level of gender awareness are determinants of women's relations in office. Internal factor comes from family support while external factors appears from work environment consist of leadership figure, people in the work environment and subordinate. Furthermore, the interaction impacts of women in the lower part of the position are: divorce, lack of attention from husband, children, family and neighbors. However, in terms of economic condition, the household conditions can be considered better.

Keywords: community socio-economic impact, position, women



Factors Affecting the Success of Gender Responsive Micro Small Medium Enterprise (Msme) and Its Relationship to Micro Financing Patterns in Jambi City

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ABSTRACT

This study aims to 1). Analyzing the factors that influence the success of gender-responsive MSMEs in Jambi City, 2) Patterns of micro-financing borrowed from banks. 3) Formulating policy for developing UMKM in Jambi City so that it develops well, orderly, and ethically. This study interviewed 326 MSME respondents spread across 11 districts in Jambi City, each of which was selected by UMKM entrepreneurs using a purposive sampling method. Mapping the condition of MSMEs at the time of the COVID 19 pandemic shows that it is analyzed descriptively, describing the length of business, business, labor, education, and aspects of capital that are not significant towards business success. Meanwhile, the factors that influenced the success of MSMEs during the COVID-19 period were analyzed using the Structural Equation Model (SEM). The results showed that the education level of MSME owners, entrepreneurial spirit, and the amount of time spent was positively related to the productivity of gender-responsive MSME owners in Jambi City. The pattern of micro-financing by banks is relatively smaller for gender-responsive MSMEs compared to micro-financing managed by savings and loan cooperatives. Each UMKM has unique characteristics that allow business differences between one another, so it is not easy to generalize in determining the treatment of gender-responsive MSMEs, including in the provision of credit. This study recommends that banks as part of microcredit need to pay attention to simplicity in the aspect of administration, ease of requirements and no interest rates, while maintaining the principle of prudence. MSME's owners and workers involved in the business must have financial reports and a certificate of understanding on MSMEs.

Keywords: MSME responsive gender, microfinance.



The Art of Anatomy: Development of Atlas of the Human Reproductive System with Clinical Correlation

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ABSTRACT

Along with the increasing need for precise diagnosis and therapy for the patients, it is a crucial challenge to design and tailoring an anatomy education to increase medical student readiness to function effectively in a clinical role. This study focused on the development of learning media in the form of Atlas of the Human reproductive system with clinical correlation and its influence in improving student's knowledge of reproductive system. This learning media is completely drawn by hand using colored pencil shading technique and water color brush technique. Every picture is edited using Krita digital painting application with water color brush technique and using Corel Draw for labelling. Expert validity of each image is carried out by a lecturer with expertise in human anatomy and an obstetrician and gynecologist to produce valid images. There are total of 35 pictures consisting of 20 pictures of male reproductive organs and 15 female reproductive organs. Each picture is equipped with a description of each part in detail, narrative about the function of each organ and also implication for clinical practice. Furthermore, this learning media will be tested for its effectiveness in increasing student knowledge on the second year undergraduate medical student in Faculty of Medicine and Health Science Universitas Jambi during their reproductive system block curriculum. Pre-post student's questionnaires will be used to assess the students' knowledge before and after the delivery of learning media, parametric tests will be used to test the hypotheses.

Keyword: Human anatomy, learning media, medical student, reproductive system



Rethinking the Existence of Green *Fatwa* as an Alternative to a Better Environmental Law in Indonesia

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ABSTRACT

This article seeks to provide readers with a perspective of Islamic law represented by fatwa and elaborate how it may become an alternative to a better environmental law in Indonesia. In 2018, a special report on climate change produced by the Intergovernmental Panel on Climate Change (IPCC) of the United Nations revealed that states continued failure to properly implement environmental law and meet their climate change pledges. The failure of the nation to apply and enforce the law has inspired many acitivisms to look at Islamic prinsiples as potential values to help the protection of the environment. While many like western people would consider that Islamic law is a problem, this article will argue that it is instead a real solution for a successful enforcement of environmental law in Indonesia. This article will also proof that Islam does not only promote values but also provides legal frameworks on the protection of environment as it is reflected through a fatwa. Considering the imperfections of national environmental law in Indoneisa, Islamic law is an alternative source of law that can be applied to complement efforts in effecting the national law and fostering compliance, as well as effect behavioural change in Indonesian communities to become more "pro-environment". Due to the "secular" mindset among the people, the implementation of Islamic law has always failed. Therefore, through this article, the readers will be confinced that Islamic law is applicable for a better environmental law. First, the article will evaluate the secular paradigm on environmental law. Second, it will propose the politics of environmental law (ius constituendum) by considering Islam law as a real solution for the environmental problems in Indonesia.

Keywords: Green Fatwa; Environmental Law; Islamic Law; Law Enforcement.



Environmental Learning Based on Integrated Mini Research Project Value Pro Environmental Behavior (Peb) and Knowledge of Ecosystem Concept to Critical Thinking Skill for Students (As An Effort to Overcome Environmental Problems)

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ABSTRACT

Critical Thinking Skill is needed in analyzing environmental problems that occur. Along with the increasing environmental damage due to human behavior and activities, a solution is needed that must be sought immediately. Through the learning environment, these skills are used to analyze problems, look for causes and effects of problems, find out how these problems occur and find a solution plan. Learning Mini Research Projects that are integrated with the value of Pro Environmental Behavior (PEB) facilitates the development of this ability by exposes students to "real life" problems which are then carried out a critical study, determining the solution to these problems and followed up with the project. This research is an experimental study with a 2x2 factorial design. The research variable is a learning model in the form of integrated mini research learning PEB and conventional models and the attribute variable is ecosystem knowledge which consists of 2 factors: high and low ecosystem knowledge. The data analysis technique used descriptive data analysis and 2-way ANOVA inferential statistics. The results showed that there was an effect of this learning model on critical thinking skills meanwhile, ecosystem knowledge has no effect on critical thinking skills. There is no interaction between the learning model and the level of ecosystem knowledge on critical thinking skills. Thus this learning models can be implemented in a learning environment.

Keywords: Mini Research Project Learning, Pro Environmental Behavior, Critical Thinking Skill



Effect of Probiotic and Fitobotic on Disbiosis of Small Intestine of Broiler Chicken

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ABSTRACT

The aim of this experiment was to evaluate the effect of using probiotic and fitobiotic on pH, total Count of Lactobacillus, E.Coli, Salmonela, and mortality rate of broiler chicken. Two hundreds day old chick (doc) of Cobb strain broiler were assigned in twenty five-floor pens in a curtain-side housed. Probiotic containing bacteria of Lactobacillus brevis, Lactobacillus fermentum, Lactobacillus plantarum dan Pediococcus pentasaceus and Fitobiotic containing curcuma, turmeric, ginger. Experimental design used was Complete Randomized Design (CRD) consisting of four treatments with five replications. The level of treatments are P0= Without probiotic and fitobiotic in drinking water, P1= Probiotic + curcuma fitobiotic 1% (B/V) in drinking water, P2 = Probiotic + Turmeric Fitobiotic 1%(B/V) in drinking water, P3 = Probiotic + Ginger Fitobiotic 1%(B/V) in drinking water dan P4= Probiotic + Combination of Ginger, Turmeric and Ginger Fitobiotic 1% (B/V) in drinking water. Diets were isocaloric (2.900 kcal of ME/kg) with (23% CP), and water were provided ad libitum for the 5-wk trial. The result showed that pH intestine were decreased P0= 6,1075, P1= 5,78, P2=5,8775, P3= 5,8175, P4= 5,8075. The total Lactobacillus count were increased, P0= 10,76496, P1= 11,518994, P2= 11,32585 P3= 11,38325 P4= 11,38489. The total count of E-coli were decreased, P0= 8,31685 P1= 7,43282 P2= 7,71038 P3= 7,69738, P4= 7,77922. The total count of Salmonela were also decreased, P0= 1,6176, P1= 0, P2= 0 P3= 0 P4= 0. The mortality rate of broiler chicken were decreased, P0= 0,75 % P1= 0,125 % P2= 0,125% P3=0 % P4= 0%. The results showed that the effect of probiotic and fitobiotic with 1% level in drinking water resulted in decreasing of pH, increasing of Lactobacillus count and decreasing of E.Coli, Salmonela count and mortality rate of broiler chicken.

Keywords: Probiotic, Fitobiotic, pH, Lactobacilus, Salmonela, E.Coli, Mortality



Development of Learning Videos Based On Local Wisdom in Learning Center Area and Group in Kindergartens

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ABSTRACT

Background This research begins with a learning model that is applied in the teaching and learning process of early childhood education in Indonesia with a variety of cultures, including using the Area model learning, Center model learning and group model learning in local culture. All models aim to improve all aspects of early childhood development such as: physical, motoric, language, social, emotional, cognitive, play, sexual, interests, personality, creativity, and morals. To understand this learning model in accordance with the development and changing times, it can be done online in the form of videos. Through information and communication technology, it can be used as an innovation in learning media that will be used in lectures for students, or for early childhood education teachers. Researchers want to develop a learning innovation in learning models for early childhood education in Indonesia which will be packaged in the form of instructional videos. The purpose of this study is to produce a learning video based on local wisdom on the learning model in early childhood education teacher education in the form of a center model, an area model, and a group model whose final result is a learning video, the end result is a learning video The research method is research development or Research and Development (R&D). The development model used refers to the ADDIE (Analysis, Design, Develop, Implementation, and Evaluation) model. The development stage of this model was carried out by Material Validation and Media Validation. The product is tried out in small and large groups of teachers. The results showed that the video video learning product was feasible to be used as a learning medium by teachers and lecturers, with the final result: Material validity for the Center was 87.5% (good), for Area 81.25% (good) and groups (82.50%).) Meanwhile, Per Indicator for Content Feasibility, each with the percentage of Center 93.75%, Are 84.37% and Group 84%. For the language aspect: Center 75%, Area 75% and Group 50% While for the serving aspect, it is obtained Sentra 87.5%, Area 87.5% and Group 87%. Media Validation for Center is 86.12% (good), for Area 88.88% (good) and Group 94.40%) While Per Indicator for Feasibility of Media quality is each with a percentage of Center 93.75%, Area 90.62 % and Group 90.60%. For the language aspect: Sentra 90%, Area 100 and Group 100% While for the presentation aspect of the Media layout, it was obtained Sentra 90 %%, Area 90% and Groups 95%

Keywords: Learning Videos, Local Wisdom, Learning Center Area And Group



Development of Higher Order Thinking-Based Learning Instruments on Microteaching Course in Chemistry Education Study Program

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ABSTRACT

Educator has an essential role in educating the next generations. Therefore, Constitution of Republic of Indonesia No.14 2005 about teachers and lecturers emphasises on the importance of com educator competences in teaching and learning activities. The qualified educators are those with pedagogic, character, social and professional competences obtained which are obtained through professional education. In order to master and create meaningful and interactive teaching and learning activities, one pedagogic competence required for the educators is instructional design.

One compulsory course offered in Jambi University for the preparation of pre-service teachers is Microteaching course. Microteaching is a course offered in the curriculum right before preservice teachers become interns in schools through professional experience program. Microteaching prepare the students' pedagogic competence in both instructional design and teaching practice. Despite the fact that the course has been offered in the curriculum for relatively long time, there are still obstacles encountered by the students related to instructional design. The phenomenon grounds the urgency to create innovations in Microteaching course, focusing on generating students' skills in instructional design.

This study examined three Microteaching's learning instruments: curriculum, learning media and assessment rubric used in the previous course and developed the three elements using Research and Development methodology by Borg and Gall. The results promote Higher-Order-Thinking Skills (HOTS)-based learning instrument to be applied in Microteaching course in order to generate students' skills in instructional design.

Keywords: Research and development, Microteaching, Learning instrument, higher order thinking skill, instructional design



Study of the Critical Limits of the Ground Water in Efforts of Peat Land Fire Prevention

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ABSTRACT

Indonesian Government Regulation No. 71/2014 requires all parties to maintain the ground water level less than 40 cm below the ground level to prevent land fires in peat lands. This regulation is quite burdensome as it will be very difficult to do during the dry season. The results of research that has been carried out on peat which has a hemic maturity level show that the soil water content is still in the range of 200% at a distance of 50 cm above the groundwater level. The purpose of this study was to study whether the same thing would happen to peat lands with different levels of maturity and water table depth. In order to achieve this objective, research has been carried out using survey and monitoring methods on the peat lands of PT. Mendahara Agrojaya Industri, located in Lagan Tengah village, Geragai sub-district, Tanjung Jabung Timur Regency for six months. Data collected includes peat depth determined by drilling using a peat drill, peat maturity is determined using the van Post method, groundwater depth carried out using a steel tape, the soil water content was determined by the gravimetric method, the C-organic content was determined using the loss on ignition method. The results showed that there was a difference in soil water content between the water level depth (50 cm, 60 cm, 70 cm, and 80 cm) and the different maturity of peat (sapric and hemic). The farther from the groundwater level, the faster the peat burns.

Keywords: groundwater level; land fire; peat land; water content



The Impact of Budget Decentralization on Local Government Performance (Study On Municipal - City Governments in Jambi Province)

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ABSTRACT

The form of fiscal decentralization in governance is the independence of local governments in planning, managing revenues and expenditures. Therefore, decentralization is an important factor for regions when managing and allocating resources such as investing in infrastructure, as well as services in order to serve the community so as to encourage regional economic growth and community welfare. The research objective was to examine the direct effect of budget decentralization, economic efficiency and economic growth on the performance of local governments and the indirect effect of budget decentralization on the performance of municipal / city governments in Jambi through economic growth and economic efficiency. This research used Partial Least Square (PLS) analysis techniques to analyze data obtained from the study population consisting of all municipal / city governments in Jambi. The research data is panel data obtained from secondary data from the Central Bureau of Statistics for the period 2017-2019. The conclusion from the data analysis is that budget decentralization, economic efficiency and economic growth have a direct effect on the performance of municipal / city governments in Jambi and economic growth has a direct effect on the performance of municipal / city governments in Jambi. We find that budget decentralization has an indirect effect through economic efficiency and economic growth on the performance of municipal / city governments in Jambi.

Keywords: Budget Decentralization, Local Government Performance.



Study the relationship between the number of protozoa and inoculum pH on the *in vitro* technique using treated *Colleus amboinicus*

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ABSTRACT

The aim of this experiment was to reveal the relationship beween the number of protozoa and the pH of inoculum in incubating of different treated *Colleus amboinicus* in *in vitro* technique. Sample of dry *Colleus amboinicus* was powdered and then treated with four treatmens. There were four treatments including *Colleus amboinicus* without treatment as control, *Colleus amboinicus* treated with tannin and *Colleus amboinicus* treated with saponin for T0, T1, T2 and T3 respectively. Treated *Colleus amboinicus* was incubated following *in vitro* gas technique. At the end of incubation period inoculum pH was measured and around 3 ml of samples was used for calculating protozoa number. Data was statistically analysed for regression and correlation. The result of this experiment shows that there was a low negative correlation betwen protozoa number and inoculum pH ($r^2 = -0.1999$) but the effect of protozoa number on the inoculum pH was also negative on the inocullum pH.

Keyword: Protozoa, pH, Colleus amboinicus, Inoculum, Relationship



Learning to Argue: Using Argument-based Learning (AbL) and Illegalmining Issues to Promote the Argumentation Skills of University Students

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ABSTRACT

Argumentation skills are crucial for students to understand science concepts including chemistry. This study had used issues about gold illegal-mining which is evented in Jambi province to promote the argumentation skills of the Indonesian university chemistry students. Three learning strategies that included Argument-based Learning (AbL), Jigsaw and Predict-Observe-Explain (POE) had been utilized and their effect on the students^ argumentation skills had been investigated. Factors that made the differences amongst those strategies had also been identified. Data were collected using open-ended tests and fieldnotes. Quantitative and qualitative methods were employed to analyze the data. The results showed that AbL was the most effective learning strategy amongst the three strategies in enabling the students to produce good quality arguments. The results of Tukey-test confirmed that AbL was significantly different [p-value<.05] from the other strategies in promoting such skills. Fieldnotes data showed that varied opportunities the students had to debate their answers was the factor that caused the differences amongst the strategies. This finding suggests that using a learning strategy that encourages students to conduct debates is highly recommended to promote students^ skills in scientific argumentation.



Entrepreneurship Competence in Improving Creative Industry Performance through Financial Literacy Levels for Micro, Small and Medium Enterprises (MSMEs) in Jambi Province

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ABSTRACT

The growth of the creative industry in Indonesia has become a pillar in the economy. This phenomenon has illustrated that human resources have the potential to be ready to compete abroad. The weak ability of creative industry players in knowledge, skills and attitudes towards finance can hinder the growth of creative industry entrepreneurs. The objectives of this study are: (1) To examine the influence of entrepreneurial competence on the performance of creative industries; (2) Assessing the influence of entrepreneurial competence on financial literacy; (3) Assessing the influence of financial literacy on the performance of creative industries; (4) Assessing the role of financial literacy to be able to mediate the effect of entrepreneurial competence on the performance of creative industries. The study population was the population of Micro, Small and Medium Enterprises in Jambi Province. The sample is 200 business actors in Jambi Province for more than 2 years running a business. The data method uses the data analysis method used with measurement of Structural Equation Modeling using the SmartPLS software. The results of the study show that (1) financial literacy shows a significant positive effect on the performance of the creative industry, increased performance must be supported by increased financial literacy; (2) entrepreneurial competence shows a significant positive effect on the performance of the creative industry, the better the competence of business actors, the better the performance; (3) entrepreneurial competence shows a significant positive effect on financial literacy, increasing entrepreneurial competence possessed by business actors, the better financial literacy owned by business actors; (4) financial literacy as a mediation of the influence of entrepreneurial competence shows a significant positive effect on the performance of the creative industry, financial literacy is considered a variable that strengthens entrepreneurial competence in decision making as an effort to improve the performance of a business.

Keywords: Entrepreneurship Competence, Financial Literacy, Creative Industries



The Impact of Rubber Auction Market Towards Transmission Price For Farmers in Jambi Province

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ABSTRACT

Rubber is a small scale plantation cultivated by smallholders. Jambi Province is one example that crucially depends on its agricultural sector, like rubber. Rubber does have the potential to be one key to economic and social development in the rural area, improving the socio-economic situation of millions of farmers in Jambi Province. However, the farmers do not have the bargaining power to determine the price of rubber slab to the traders. One of the distribution channels through the auction market, which tries to help farmers getting a higher price from the trader. The Objectives were analyzing the impact of the rubber auction market toward transmission price for farmers by using a descriptive method to describe the changing in price received by the farmer in the auction market and counting the price transmission elasticity through simple regression, also the farmer share. The result shows that farmers only got 40-60 percent from selling their rubber in the auction market. This condition explains the vulnerability of the farmer's position. One of the reasons is farmers who do not optimally role their marketing function. The rubber auction market is an alternative marketing distribution for farmers to get a more reasonable price with good quality of rubber material, with the price transmission elasticity 2.85. While price changes at the export level are transmitted very little to farmers, and the effect on farmers is shallow. In the future, farmers need to cooperate in one group of institutions to sell their rubber in considerable quantities to get bargaining power and fair price.

Keywords: Rubber, Smallholders, Transmission Price Elasticity, Auction Market.



Use of Financial Technology for Micro, Small and Medium Enterprises in The New Normal Era

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ABSTRACT

The spread of the corona virus does not only have an impact on health but has an impact on the economic sector. Entering the new normal period, health protocols still have to be a concern because the Covid 19 pandemic has not ended. The development of MSMEs can make a positive contribution to the economy. The need for capital is the main reason for MSMEs to sustain their business. Capital is an important factor for business actors in building and developing their business. Knowledge, behavior, attitudes and beliefs about finance play an important role in making decisions, especially decisions about sources of venture capital. The government through regulations regarding financial technology provides solutions to answer the problems of MSME business actors during this new normal period. (1) Assessing the influence of financial literacy on decisions on the use of financial technology during the new normal period; (2) Assessing the influence of financial literacy on business actor confidence; (3) Assessing the influence between the trust of business actors on the decision to use financial technology in the new normal period; (4) Assessing the role of trust in business actors to be able to mediate the effect of financial literacy on decisions on the use of financial technology in the new normal period. The data analysis method used was the measurement of Structural Equation Modeling (SEM) using the SmartPLS software. The results showed that (1) financial literacy showed a significant positive effect on the decision to use financial technology during the new normal period; (2) financial literacy shows a significant positive effect on the trust of business actors; (3) the trust of business actors shows a significant positive effect on the decision to use financial technology during the new normal period; (4) the trust of business actors as a mediator of the effect of financial literacy shows a significant positive effect on decisions to use financial technology in the new normal period

Keywords: Financial Literacy, Financial Technology, New Normal



Mapping of Local Government Internal Control System Problems: A Content Analysis

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ABSTRACT

The purpose of this study is mapping the problems the implementation of internal control system in the local government. A qualitative approach through a method of content analysis used in this research. The analysis used is leximancer instrument. The data used derived from audit reports of Badan Pemeriksa Keuangan (BPK) 2014-2018 years. The subject of study is the districts and city done the segregation in Jambi Province. The result showed implementation of the information systems and communication and the optimal monitoring have implemented. Environmental element control has been applied but still needs to optimize particularly related to the competence of employees, discipline and ethics enforcement employees. Element risk assessment and the activity control is still must be attention, although has also started to adopted by regional governments. Internal control over assets especially fixed assets need to be special attention for local governments. Conclusions overall all the internal control system has been implemented while still there were several weaknesses, fore that still need to be optimized.

Keywords: Control environment, risk assessment, control activities, information and communication systems, monitoring.



Microbiologycal and Sensory Properties of Pempek Packed using Yam's Starch-Based Antibacterial Bioplastics

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ABSTRACT

Antibaterial bioplastics has been succesfully produced using yam starch and clove oil. The bioplastics shows antibacterial activity against Staphylococcus aureus, a common bacteria found in animal products such as pempek. This study aimed to determine the effect of antibacterial bioplastic made out of yam starch and clove oil on the microbiological and sensory qualities of pempek during storage. This research was carried out by using 2 different packaging: antibacterial bioplastics and polyethylene plastics. Pempek were packed using these packaging and kept for 0,8,16,24,48 hours at room temperature. The number of Staphylococcus aureus grew in pempek was determined using colony forming unit. Sensory properties were obtained by determination of color, texture and aroma of pempek using 5 skilled panelists. The results showed that antibacterial bioplastics packaging decreased the growth of Staphylococcus aureus bacteria in pempek. The decrease in acidity was in line with the grow of Staphylococcus aureus that is higher decrease in acidity of pempek packed with polyethylene plastics. Antibacterial bioplastics also helped pempek to have better sensory properties during storage than polyethylene plastic.

Keywords: Antibacterial Bioplastics; Clove Oil; Pempek; Yam's Starch



The Effect of Mercury (Hg) Levels on the Growth Rate of Pilsbryoconcha spp Shells as Teaching Materials in Animal Physiology

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ABSTRACT

This study aims to determine how mercury affects the growth rate of mussels and how to compare the growth rates of shellfish exposed to different levels of mercury Hg. The study used a completely randomized design (CRD) with 3 treatments and 6 repetitions in order to obtain 18 experimental units. The three treatments were different levels of Hg with the same number of shells, namely 15 tails (P0: 0 ppm mercury solution P1: 0.5 ppm Hg solution; and P2: 1 ppm Hg solution. Data collection was carried out using observation and documentation methods. Every 2 weeks for 2 months of maintenance. The research parameters included daily growth rate, absolute growth and relative Pilsbryoconcha spp. Data were analyzed using ANOVA and if the effect was followed by 5% DMRT test. The results showed that mercury affected the growth rate, absolute growth and relative of Pilsbryoconcha spp. The length growth rates for the control, 0.5 ppm and 1 ppm mercury (Hg) ranged from 0.12 to 0.22 respectively; 0.08-0.09 and 0.03-0.1 cm / observation or a decrease in the length growth rate from the control treatment of 0.16 cm / day to only 0.006 cm / day at 0.5 ppm, and the more significant the decrease on mercury 1 ppm of 0.002 cm / day. The weight gain each time the observation corresponds to the level of mercury given ranges from 0.071-0.349 g (0 ppm), 0.031-0.077 and decreases at 1 ppm mercury reaching -0.03 to 0.006 g. The growth rates of the relative length were 0.081 each; 0.024 and -0.035 cm / observation. For the relative weight growth in the control of 0.02 g, 0.010 at 0.5 ppm and 0.007 g / observation. The results of further analysis showed that the increase in weight and length of Pilsbryoconcha spp between mercury levels was very significant, especially between the addition of 1 ppm which was very different from other treatments. The increase in the average length of each was 0.167 cm; 0.012 cm, and 0.006 cm. The rate of weight gain at 1 ppm with 0.5 ppm mercury was not different, but very different when compared to the control (0.715 g vs 0.935 vs 2.233 g / observation). The average daily weight growth rate was 0.052 at 0.5 ppm and 0.068 days at 1 ppm mercury, while for the control it was 0.158 / day. This shows that mercury is very dangerous for the life of the shellfish Pilsbryoconcha spp and prolonged exposure to mercury can reduce the growth rate of shellfish during maintenance. From the results of the study, it is suggested that the reduction in the growth rate of Pilsbryoconcha spp shells due to mercury exposure for 2 months of maintenance can be important information for the community and certain parties in the effort to cultivate shellfish and aspects of food safety and become one of the teaching materials in the Animal Physiology.

Keywords: Pilsbryoconcha spp, Mercury, growth rate



Catalytic Cracking of Crude Palm Oil (CPO) Using Catalyst Ni-USY Zeolite

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ABSTRACT

As the demand for fuel is increasing, biofuel should be developed as an alternative energy source. *Crude Palm Oil* (CPO) is one of the material sources that can be converted into biofuel by catalytic cracking process. In this research, CPO was converted to biofuel by catalytic cracking using Ni-USY zeolite catalysts. The various concentration of nickel metals (1%, 2%, 3%) were embeded into USY zeolite by ion-exchange method. The catalytic cracking processes were carried out with various temperature (450°C, 500°C, 550°C). The catalysts were analyzed using XRD where all the highest peaks on each catalyst pattern appeared at the 20.7° degree which is confirmed that all the catalysts were on the FAU framework. The higher the temperature of catalytic cracking, the greater the percentage of oil liquid product (OLP) obtained. However, the higher the concentration of nickel metals embeded into the USY zeolite, the lower the percentage of OLP yield.



Correlation among morphological characters of Kerinci Local Sweet Potato (Ipomea batatas L) Accessions in Kerinci Regency

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ABSTRACT

Background Preeclampsia still becomes a major cause of maternal and perinatal mortality. One of important focus on pathogenesis of preeclampsia is the placenta. An excessive apoptosis can induce failure of trophoblast cells to perform remodeling on spiral arteries. Abnormal remodeling activity may cause uteroplacental ischemia and endothelial cells damage, this induce clinical manifestations of preeclampsia. p53 is one of gene that plays a role as a cells apoptosis regulator (as pro-apoptosis). This gene would activate cascade apoptotic pathway that resulting in cell death processes. Aim of this study to identify differences of p53 gene expression between preeclampsia and normal pregnancies. Method This is a case control study, performed in Biomolecular Laboratory Faculty of Medicine and Health science Universitas Jambi. Human placenta from patients with preeclampsia (n=25) and normal pregnancies as control (n=25) were collected from several hospitals in Jambi City from June 2020 to August 2020. Expression of p53 was assayed by quantitative real time PCR (qRT-PCR). Result Gene expression of p53 was significantly increased in pregnancies with preeclampsia (1,91±5,90) compared to normal pregnancies group (4.85 ± 3.04) (t-test; p< 0.032). Expression of p53 has relatively increased by 7 fold for relative quantification by normalized with the internal control target gene GAPDH. Conclusion Expression of p53 gene in preeclampsia is higher than normal pregnancies and There was significant difference between two groups in p53 gene expression.

Keywords: p53, preeclampsia, apoptosis



The Use of Track Changes and Whatshapp Group as Media on English Structure Learning in Higher Education

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ABSTRACT

Social media on internet is a significant alternative environment for language practice and use. The use of whatshapp group nowadays is rapidly increasing. Educators should consider this to be a value for educational purposes. This study attempts to investigate the students' perceptions on the use of track changes and whatsapp groups as media for learning English structure subject. The writers investigated a need to carry out this study as it provides a platform to discover pedagogical implications that would benefit the Y-generation in terms of improving their error-recognition skill from the text given in an Indonesian EFL context. The respondents of this research comprise second year students completing their bachelor's degree in Economics studies, Universitas Muhammadiyah Jambi, Sumatra, Indonesia. The students' perceptions were measured through a questionnaire. The writer implemented blended learning where the teaching English structure was through face to face activity and online learning. Respondents were required to participate in a whatsapp group where students share their work to recognize and revise error by using trackchanges. The findings showed that 'track changes and whatsapp group' is an effective media to be implemented in English structure learning and to enhance students' affective domain in English structure skill. The results of this study may be beneficial to EFL educators in incorporating trackchanges and whatshapp group into their teaching repertoire.

Keywords: Blended Learning, Students' perception, Trackchanges, Whatsapp Group keyword: p53, preeclampsia, apoptosis



Cracking of PET/LDPE plastic oil with H-ZSM-5 catalyst for liquid hydrocarbon product

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ABSTRACT

The oil from the PET/LDPE plastic waste mixtured pyrolysis at 200 °C still has a hydrocarbon composition with a high carbon in range C9-C40. Improving the quality of the plastic oil for use as a transportation fuel through a catalytic cracking process with HZSM-5 had studied. The catalytic cracking process of PET/LDPE plastic oil with H-ZSM-5 catalyst occurred at 180 °C in a pressurized batch reactor for 1 hours. The liquid hydrocarbon product which was assumed to be fuel oil contains a number of branched aliphatic hydrocarbons and aromatics. This liquid product can be purified at a later stage to produce liquid fuel in the hydrocarbon range gasoline (C8-C10) which can be used for transportation fuels.

Keywords: plastic waste; catalytic cracking; HZSM-5; transportation fuel



Control of Geminivirus by Chitosan in Chili Pepper Plants

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ABSTRACT

Chili pepper (*Capsicum annuum*) plants are considered sensitive to Geminivirus. The chitosan have potential to controlling plant disease. A research was conducted to study the chitosan potential to protect chilli peper from Geminivirus infection. Chitosan was applied through seed treatment and foliar two weeks old seedlings. Chili pepper were natural inoculated in the field. The chitosan able to protect the chili pepper from infection Geminivirus, less severe disease symptoms, disease incidence was lower than plants without protected with chitosan. Futher study is required to evaluate the potency of chitosan for used in integrated disease management strategy following protection approach.

Keywords: chili pepper, chitosan, Geminivirus.



Impact of Oil Palm Development on Several SDGs Indicators in Indonesia

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ABSTRACT

The development of oil palm plantations and their production is not only expected to generate foreign exchange for the country, but it is also expected to have a positive impact on the social and economic development of the community, which must be in line with the sustainable development goals (SDGs). The development of oil palm plantations that involves the people through the Nucleus Estate and Smallholder (NES or PIR) Scheme with its various variations has several weaknesses that are detrimental to farmers, causing various conflicts and weaken farmers' bargaining position, unclear determination of plantation development costs and unclear criteria in determining the quality and price of fresh fruit bunches (FFB) produced by farmers. This study aims to study whether oil palm development is able to improve socioeconomic conditions of the people in Indonesia, mainly in main oil palm producing provinces in accordance with the SDGs targets, including reducing poverty levels, increasing income distribution and increasing the human development index. The research was carried out on a national scale, especially in oil palm producing provinces in Indonesia. The data used are time series data for the period of 1990 to 2018. The analysis model used is a regression model where oil palm area as an independent variable and the SDGs indicators as dependent variables. The results of the research show that the development of oil palm nationally can significantly reduce the number of poor people both in rural and urban areas, increase inequality in income distribution and have no effect on improving the welfare of the community based on the human development index.

Keywords: Oil palm, SDGs, poverty, income distribution, human development index.



Analysis of Spiritual Intelligence, Religiosity and Islamic Work Ethics on the Performance of BMT Administrators in Jambi City with Work Motivation as an Intervening Variable

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ABSTRACT

This study aims to determine the effect of spiritual intelligence, religiosity, Islamic work ethics on the performance of the administrators of Baitul Maal Wa Tamwil (BMT) in Jambi City, with mediated or without mediated by work motivation as an intervening variable. The development of Baitul Maal Wa Tamwil (BMT) in Jambi was quite slow compared to other provinces on Sumatra island, so this research was conducted in Jambi city. This research design used a quantitative method with a survey approach to obtain primary data by distributing questionnaires to 45 administrators of Baitul Maal Wa Tamwil (BMT) in Jambi City using saturation sampling techniques in determining the sample. Then the quantitative data was processed using the Structural Equation Model (SEM) with SmartPLS3 software. The purpose of this study was to see the influence of Spiritual Intelligence, Religiosity, and Islamic Work Ethics on Work Motivation of Baitul Maal Wa Tamwil administrators and to analyze the influence of Spiritual Intelligence, Religiosity, Islamic Work Ethics on Performance of Baitul Maal Wa Tamwil administrators through the mediation of Work Motivation as an intervening variable. Then, to analyze the effect of work motivation on the performance of Baitul Maal Wa Tamwil administrators in Jambi City. The results of this study found that spiritual intelligence directly influence work motivation but not on religiosity and Islamic work ethics. Meanwhile, work motivation had a direct influence on performance. For Indirect Relationship, only Spiritual Intelligence that mediated by work motivation that had an influence on other performance.

Keywords: BMT, Work Motivation, Performance, BMT Management



Analysis of Behavioral Intention of Jambi University Students Using the E-Learning System in New Normal Era with the Decomposed Theory of Planned Behavior Model Approach

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ABSTRACT

The purpose of this study was to empirically prove the Decomposed Theory of Planned Behavior (DPTB) model by see the relationship between indicators in the Decomposed Theory of Planned Behavior (DPTB) model on student behavior using the E-Learning system owned by Jambi University in New Normal Era. The type of data used in this research was primary data which is obtained directly from respondents by using a list of statements in the form of a questionnaire. Jambi University students would be the target samples in this study. To calculate the determination of the number of samples, the sampling method used the Slovin technique using an error rate of 5% with a sample size of 395 people. Data analysis was carried out using the SEM approach. The first objective of the study was to test theory. The analysis technique used Covariance-based SEM, namely the SEM approach using Smart PLS 3 tools. The results of this study found Relative advantage, compatibility, Awareness and Uncertainty had an influence on attitude and Normative Belief had an influence on subjective Norm and Self Efficacy, Resource Facilitation had an influence on Perceived Behavioral Control. Meanwhile, attitude variable had no effect on Behavioral Intention, which is inversely proportional to subjective norm and perceived behavioral control which had an effect on Behavioral Intention. Keywords: Jambi University, Decomposed Theory of Planned Behavior (DPTB) model, SEM, E-Learning System.



The Role Of The Serampas Traditional Society In Control Of Forest Destruction In Jambi Province (Juridis Review Of Law No. 41 Of 1999 Concerning Forestry)

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ABSTRACT

About 370 million people, 5% of the world's population consists of 5,000 of the world's indigenous peoples. This number also includes more than 100 unspoiled tribes who still live in isolation from the general public. In Indonesia, there are 50 to 70 million indigenous peoples, and many of them around 50 million people depend on forest resources for their livelihoods. Customary lands managed by indigenous peoples constitute about a quarter of Indonesia's territory, an amount proportional to all Indonesians. However only 0.5% of customary land in Indonesia is legally recognized as customary land.

Serampas community in merangin, Jambi Province received confirmation through Regional Regulation Number 8 of 2016 concerning Recognition and Protection of the Serampas Customary Law Community. The ratification of this perda is in line with the implementation of the decision of the Constitutional Court (MK) -35, concerning customary forests and related laws and regulations. The contents of this perda are declarative, recognize, and provide protection for the existence and traditional rights of the Serampas customary law community which have been neglected so far, contained in article 5 paragraph (2) Law no. 41 of 1999 regarding the recognition of customary rights. With this regional regulation, Serampas' customary legal rights can be restored and become the entrance to empowerment and development there.

The type of research in this journal uses normative legal research or literature which includes research on legal principles and research on legal systems. The approach in compiling this research uses a statute approach and a conceptual approach.

The land management practices of the Serampas indigenous people, their local and traditional knowledge, and their spiritual relationship with the forest are the basis for effective and sustainable forest protection, especially in Jambi Province. Because indigenous peoples basically have an important contribution in achieving global climate, forest restoration, biodiversity and sustainable development goals.

Keywords: indigenous peoples, Serampas indigenous people, Law No. 41 of 1999, customary forest



The Production Pattern of Rubber Farming and Farmer Behavior in Dealing With Price Fluctuations in Jambi Province

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ABSTRACT

This study entitled "The production pattern of rubber farming and farmer behavior in dealing with price fluctuations in Jambi Province". This study aims to determine (1) the magnitude of the fluctuation in rubber prices (2) the pattern of production of Bokar and the behavior of farmers in dealing with price fluctuations and (3) the elasticity of the supply of Bokar in Jambi Province.

The scope of this research is Jambi Province and primary data was taken from two selected villages, namely Muhajirin Village in Muaro Jambi Regency and Tanah Tumbuh Village in Bungo Regency. Supply elasticity will be analyzed using secondary data and parametric statistical tests.

The results showed that the fluctuation in the price of Bokar in Jambi Province was quite large, namely Rp. 4,200 per kg in January 2002, then increased to Rp. 43,200 in February 2011, and decreased again to Rp. 6,000 per kg in June 2020. The pattern of rubber production in Muhajirin Village looks irrational where when the price goes down the farmers actually increase their production, that is, in order to meet their daily needs that cannot be reduced. This means that production can still be increased by increasing tapping frequency. The pattern of rubber production in Tanah Tumbuh Village looks rational, where when the price of rubber goes down the farmers do not tap rubber. To meet the needs of farmers, they switch jobs to other fields, such as laboring on plantations, construction workers, or panning for gold. Bokar's supply elasticity in responding to rubber price changes in Jambi Province is small from one (<1) but the change is significant.

Keywords: production patterns, price fluctuations



Detection and Identification of Glaucoma Disease Based on Image Features Using Neural Convolutional Method Network (Cnn)

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ABSTRACT

Glaucoma is the second most common cause of blindness after cataracts. Glaucoma sufferers in the world are predicted to reach 76 million. And it is estimated that in 2040 it will reach 111.8 million. Symptoms of glaucoma that arise usually cannot be felt immediately. So it is necessary to do an eye examination first to find out the presence of glaucoma. Several cases of automatic glaucoma diagnosis using computer technology with certain programming algorithms are increasing rapidly, but pre-process analysis of input in the form of photos (images) is quite complicated and is a common challenge between the world of computer technology and clinical practice (medicine). The detection of glaucoma eye disease remains a challenging task for computer-aided diagnostic (CAD-x) systems. In this study, the detection process of glaucoma was carried out on computerized and automatic retinal fundus images. The research was conducted using the convolutional neural network (CNN) algorithm in the detection of glaucoma using fundus photos from the Mammographic Image Analysis Society (MIAS) dataset and the Kaggle dataset to be collected, as well as seeing the accuracy of identifying someone detected as having glaucoma or not. Data obtained as many as 1700 images consisting of 1200 eye images of people with glaucoma and 500 images of normal eyes. The research will be divided into three processes, namely preprocessing, feature extraction, and identification. Preprocessing used is manual segmentation, gray scaling, and resize. Extraction and identification used CNN) method. This study will divide the data into two parts, namely training data, test data and validation data. Training data is 70% of the total data, test data is 10% of the total data and validation data is 20% of the total data. The highest accuracy result obtained is 96%. Meanwhile, the results of identification testing were > 90%.

Keywords: Glaucoma, Citra, Fundus, CNN, eyes



The Effectiveness of Game Online on Students Vocabulary Enrichment

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ABSTRACT

English as a compulsory course in the Faculty of Teacher Training and Education of University of Jambi and most of the students, especially non English Department, have lack of English vocabulary enrichment. This study is written to know the effect of using Game Online on students English vocabulary for non English Department. This study is quasy experimental research which give different treatment between experiment class and control class. Game Online was used for the experiment class and convensional teaching method was used in the control class. The population of this study are all of the second semester students, non English Department, in the Faculty of Teacher Training and Education of University of Jambi and the sample was taken by using cluster sampling. Test and non test were used as the instrument for this study. The result of this study are: (1) the students who were taught by using Game Online had better result on English vocabulary than the students who were taught by convensional teaching method. (2) The students who were taught by using Game Online gave positive response as a various media in learning English vocabulary, so this media can motivate the students for learning vocabulary in the class and out of the class.

Keywords: Game, Game Online, Vocabulary



An English Teacher's Problem On Teaching Inclusive Classroom

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ABSTRACT

This case study is aimed to analyse and to describe the problems of a primary English teacher of one of private schools in Jambi province in teaching inclusive class. In collecting the data, the researcher interviewed the participant for twice. After collecting the data, the researcher analysed the data based on Creswell's technique of data analysis. This study results three major problems encountered by the English teacher in teaching inclusive class. The first is the lack of teacher's background knowledge about inclusive education. The second is the lack of supporting from school including the readiness to implement inclusive education, the lack of teacher's training, the lack of teacher assistant and the lack of information about the school status as an inclusive school. The last is teacher's difficulties in managing classroom. In the end, the results of this study are expected to be used as input for English Education of Study Program of Jambi University to introduce Inclusive education to its students.

Key words: English Teacher, Problem, Inclusive class.



Model of Market Orientation and Business Performance for SMEs of Batik Jambi

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ABSTRACT

Relationship testing between market orientation and business performance has been widely conducted. The biggest issue is about model development, while the issue related to managerial applications is still very lacking in information especially for SMEs. This research aims to (1) formulate a market orientation strategy and (2) implement the market orientation strategy that has been formulated to improve the business performance for SME of batik Jambi. The research was conducted in SMEs of batik Jambi in Jambi City. The research is used in a qualitative design. Moreover, the data is analyzed with Resource-Based Analysis (RBV-analysis) and Political, Economic, Social, and Technology analysis (PEST-analysis). This study also supported by methods of observation, simulation, and in depth-interview. The finding result showed that there are three capabilities that become the advantages of batik Jambi consist of color innovation, motives diversification, and consumer orientation. Besides, it is known that batik Jambi also has some weaknesses related to price competition, technological innovation, and market access. It is hoped that the implications of this research can produce a formula in terms of a strategic policy not only for SMEs of batik Jambi but also for stakeholders and local governments.

Keywords: market orientation, product innovation, business performance.



The Role of Transforming Growth Factor (TGF) ß-1 Genetic Variant as Risk for Fenal Somplication in Diabetic Patients; Pre-liminary Study in Jambi Malay Population

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ABSTRACT

Introduction the diabetic milieu induced Transforming Growth Factor (TGF \(\beta\text{-1}\)) expression which have play role in excess deposition of extra-cellular matrix leads to decline renal function. Genetic variants of TGF \u03b3-1 alter TGF \u03b3-1 level or function and predict risk for diabetic renal complication but the result still controversial beyond population worldwide. Early assessment of genetic risk may enhance better treatment. Genetic variants as risk of the diseases also influenced by ethnicity, to the best of our knowledge association of TGF-B genetic variant with renal function in diabetic patient never conduct in Jambi Malay population. Aims of this study was to revealed of TGF-B genetic variation role as risk factor for renal complication in diabetic patients. Methods this study was cross sectional, totally 70 diabetic patients who fulfilled research criteria was participated to this study. As much 22 patients have diabetic renal complication sign by decline renal function sign by GFR less than 60 mL/min/1.73. Genotyping was performed by Amplification Refractory Mutation System Polymerase Chain Reaction (ARMS-PCR) for TGF β-1 rs1800470 T/C and the Deoxyribonucleic Acid (DNA) was extracted from peripheral vein buffy coat. Bivariate and multivariate analysis was performed. Result bivariate analysis reported subject with TT have higher risk for diabetic renal complication (p value: 0.004; OR: 9.60; 95% CI: 1.83-50.29) than CC genotype. Predictive logistic regression analyzed other variable which also contributed to diabetic renal complication simultaneously (uncontrolled blood pressure and blood plasma glucose) reported similar trends (p value: 0.009; OR: 12.34; 95% CI: 1.88-80.87). Conclusion subject with TT of TGF β-1 rs1800470 have higher risk than other genotype for having diabetic renal complication, the risk was higher in subject with uncontrolled blood pressure and blood glucose. Further research with larger sample and other genetic variation was needed.

Keywords: TGF β-1 genetic variation; diabetes mellitus; diabetic renal complication



Critical Incidents in Tutorial Session: Identification and intervention strategies in group dynamics

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ABSTRACT

Background: tutorial discussion is one of the crucial activities in problem based learning. During the pendemic Covid 19 this activity were carried out online and keeping group dynamics working becomes a challenge. There are six factors hindering group dynamics (unequal participation, lack of cohesion, lack of motivation, lack of elaboration, lack of interaction, and personality problem). Tutor's and students' perception on critical incidents are affected by each individual point of view on the incidents which will influence intervention expected by students and actual intervention by tutor. Aim of this research is to identify students and tutors perception on critical incindents during tutorial and types of of intervention done by tutor to overcome these incidents. Method: This is a mixed-method research which combines quantitative and qualitative approaches. 84 fourth years students and 7 tutors involved. Students and tutors' perception on critical incidents were collected by online survey using validated questionnaire consist of 33 Likert-scale items and 2 open-ended questions. Intervention done by tutors was further explored using focus group discussion. Result according to both student and tutor perceptions, we found unequal participation to be the most frequent critical incidents. Nevertheless, we found different perception between students and tutors on factor that hindered discussion which require tutor intervention; students precieved difficult personality, while tutors stated participation imbalance. Tutor's factors, feedback, assessment, quality of scenario, and scheduling issue were also found to have role in critical incidents in tutorial. Tutor's intervention to critical incidents had been done but further increament is needed. Conclusion: Students' and tutors' perception on critical incidents were in line in term of the most frequent incidents, but differ in factor that hinder discussion the most and require tutor's intervention. Interventions by tutors were not adequate in order to overcome arising critical incidents.

Keyword: critical incidents, tutorial, group dynamic



Empowerment Program, Temporary Loss Income, as well as Household Readiness Level to Face the Small Holder Palm Oil Replanting Program

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ABSTRACT

This survey research with household analysis units in 3 villages (Purwodadi, Dataran Kempas and Sungai Keruh) in Tebing Tinggi Subdistrict, Tanjung Jabung Barat Regency aims to analyze the role of empowerment programs in encouraging the level of readiness of farmer households in facing the oil palm replanting program. The results showed that the level of readiness of households in facing the oil palm replanting program was relatively low in terms of both institutional and socio-economic aspects. On the institutional aspect, community involvement in institutions such as cooperatives and farmer groups is still low, and on the other hand the extent and status of land ownership according to the requirements of the Oil Palm Plantation Fund Management Agency is not fulfilled. On the other hand, limited investment funds and the factor of loss of income during the palm replanting process are the main reasons for households to delay replanting. Community empowerment programs such as the Desa Makmur Peduli Api Program initiated by Sinar Mas Plantation through PT. Wira Karya Sakti does not yet have a wide reach, both in terms of the number of participating households and the economic impact that can encourage household economic independence. Based on the results of the research, it can be concluded that there is still a need for innovation and expansion of empowerment programs to encourage household readiness in facing the community oil palm rejuvenation program.

Keywords: oil palm, replanting, empowerment, loss income, and households



Effectiveness of Actived Charcoal Toothpaste (*Elaeis Guineensis J.*) Containing Allantoin against Gingivitis of Rat Model

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ABSTRACT

The most common cause of gingivitis is the accumulation of bacterial plaque containing tar between and around the teeth that damage the soft tissues lead to gums inflammation. This study aimed to design the toothpaste formula which has good physical properties and the effectiveness in reducing severe gingivitis. Methods used in this study included the preparation of a toothpaste formula containing 12% of activated palm charcoal combined with 1% and 2% of allantoin (F1 and F2) then compared with controls. Evaluation of physical properties and stability through cycling test. Furthermore application of each formulas against rats model and assessment of plaque index and gingival index. Both F1 and F2 showed a significantly high reducing percentage plaque and gingival index compared than control. Nevertheless F1 exhibited physical properties and the stability more better than F2.

Keywords: activated charcoal, allantoin, gingivitis, plaque index