

ตัวอย่างข้อผิดพลาดที่พบบ่อยในบทคัดย่อ และข้อเสนอแนะปรับเปลี่ยน
ประชุมคณะกรรมการกลั่นกรองบทคัดย่อและบทความวิจัย
เพื่อสำเร็จการศึกษา ระดับบัณฑิตศึกษา

สาขาวิชามนุษยศาสตร์และสังคมศาสตร์

ชื่อจังหวัดภาษาอังกฤษให้สะกดตามราชบัณฑิตยสภา

Thesis Title	Factors Affecting the Leadership of Secondary School Teachers under the Secondary Educational Service Area Office <u>Prachin Buri</u> Nakhon Nayok
Name - Surname	
Program	Educational Administration
Thesis Advisor	
Academic Year	2024

ของอัครเดช เวชมนะ
Prachin Buri
อ. ทวีศักดิ์ ใจดี
จ. ไร่คำใหม่

ABSTRACT

This research aimed to study: 1) the level of factors related to the leadership of secondary school teachers under the Secondary Educational Service Area Office Prachin Buri Nakhon Nayok, 2) the level of leadership of secondary school teachers and 3) the factors affecting the leadership of secondary school teachers.

The sample group of this research consisted of 662 teachers under the Secondary Educational Service Area Office Prachin Buri Nakhon Nayok through stratified random sampling. The research instrument for data collection was a 5-point Likert scale questionnaire with the reliability of .96. The statistics used for data analysis were mean, standard deviation and multiple regression analysis ^{by} the enter method.

The research results revealed that: 1) the overall mean of factors related to the leadership of secondary school teachers was at a high level, 2) the overall mean of leadership of secondary school teachers was at a high level and 3) the factors affecting the leadership of secondary school teachers under the Secondary Educational Service Area Office Prachin Buri Nakhon Nayok were the personal characteristics, the organizational culture, the support from administrators and the interpersonal relation. The factors could predict the level of leadership of secondary school teachers at 58.60% with the statistical significance level of .05.

Keywords: factors, leadership, secondary school teachers

Thesis Title	Work Stress Factors of Administrators Affecting the School Administrative Effectiveness under the Secondary Educational Service Area Office <u>Prachinburi</u> Nakhon Nayok	
Name - Surname		ของอัครพร เชื้อหมื่นไ้
Program	Educational Administration	Prachin Buri
Thesis Advisor		อ. ทวีร์กัมมาเดชาวณิช
Academic Year	2024	จ: ไร่ดำโนน ๑

ABSTRACT

This research aims to study: 1) the level of work stress factors of administrators under the Secondary Educational Service Area Office Prachinburi Nakhon Nayok, 2) the level of school administrative effectiveness under the Secondary Educational Service Area Office Prachinburi Nakhon Nayok and 3) work stress factors of administrators affecting the school administrative effectiveness under the Secondary Educational Service Area Office Prachinburi Nakhon Nayok.

The population of this research consisted of 210 administrators and heads of departments under the Secondary Educational Service Area Office Prachinburi Nakhon Nayok. The research instrument used for collecting data was a five-point Likert scale questionnaire with a reliability of .93. The data were analyzed using the statistical analysis of mean, standard deviation, and multiple regression analysis by the enter method.

The research results revealed that: 1) the overall average level of work stress factors among administrators was high, 2) the overall average level of the school administrative effectiveness was high and 3) the work stress factors affecting the school administrative effectiveness were job descriptions, roles and duties in the organization, professional advancement, and interpersonal relationships. These factors could predict the school administrative effectiveness at 49.80% with the statistical significance level of .05.

Keywords: work stress, effectiveness, school administrative

Thesis Title Investigating the Impact of Utilizing Role-play Approach in Flipped-classroom on Student's Proficiency in English-speaking: A Case Study of Secondary Arts School of Inner Mongolia Arts University

Name-Surname

Program Learning Technology and Innovation

Thesis Advisor

Academic Year 2024

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ABSTRACT

This thesis investigates the implementation of the utilization of Role-play (teaching approach) in the Flipped-classroom in English-speaking classes at the Secondary Arts School of Inner Mongolia Arts University. The study addresses two objectives, 1) Role-play can improve oral proficiency among high school students and 2) the specific aspects of oral proficiency that are most affected examining its potential to enhance students' engagement, oral proficiency, and autonomous learning skills.

Emphasis is placed on the junior high school level with 30 students were selected using simple random sampling method. Data were collected through questionnaires, oral tests, classroom observations, and interviews.

The findings ^{reveal} review that the role-playing approach positively impacted students' oral fluency, grammatical accuracy, lexical richness, and pragmatic competence. Among 30 surveyed students, 50% saw notable fluency improvement, while 33.3% saw some improvement. For grammatical accuracy, 40% reported significant gains, and 33.3% noticed moderate improvement. Regarding lexical richness, 46.7% observed significant improvement, and 36.7% noted some improvement. Lastly, 43.3% saw a major boost in pragmatic competence, while 36.7% experienced moderate gains. Only 3.3% reported a slight decline in all aspects. The overall learning outcomes were statistically significantly ^{significant} higher at the level of .05. The average score was 4.53 with a standard deviation of 0.28.

Keywords: autonomous learning, flipped-classroom, oral proficiency, role-play

คำที่มีความหมายเดียวกันควรใช้ให้เหมือนกันตลอดทั้งเนื้อหา

(3)

Dissertation Title	Design and Implementation of an Intelligent Baby Incubator for Monitoring via Internet of Things and Artificial Intelligence
Name-Surname	
Program	Mechatronics Engineering
Dissertation Advisor	
Academic Year	2024

ABSTRACT

The Neonatal Intensive Care Unit (NICU) in hospitals is designed to care for babies born prematurely. One of the essential medical devices in the NICU is a baby incubator, which is used to regulate the humidity and body temperature of the baby to remain within normal limits. The general principle of how a baby incubator works involves manipulating temperature and humidity, which must be constantly monitored until the baby's condition meets normal requirements. Therefore, the research is being conducted to automatically regulate the parameters of the incubator using the concepts of the Internet of Things (IoT) and artificial intelligence (AI).

The designed architecture consists of hardware, software and networking components. This research involves several stages, including the application of AI methods and control systems using PID and Fuzzy Logic. The hardware architecture is designed using microcontroller modules, sensors and actuators that are interconnected to process sensor readings and regulate the incubator conditions using PID and Fuzzy Logic control. The data from the sensor readings is then transmitted via Wi-Fi networks using the MQTT protocol to and IoT broker. The transmitted data is assigned a unique identity corresponding to the object or parameter of the incubator. Subsequently, the sensor data is stored in a database for analysis using 1D-CNN and LSTM methods to predict future conditions of the incubator. Additionally, a web-based application is designed to display sensor data in real time.

The testing results, conducted over a Wi-Fi network for 80 minutes with 1-second intervals, produced 4010 data points with a 16.45% missing value rate. The PID system for regulating incubator temperature had an error rate of 2.35%, compared to 11.78% without PID. Using fuzzy logic to regulate the temperature from 29°C to a setpoint of 34°C, the time to reach the set temperature was under 10 minutes with a 0.35°C error over 1 hour. The LSTM model predicted temperature variations with high accuracy ($R^2 = 0.934$, RMSE = 0.015, MAE = 0.008). The 1D-CNN model, using temperature and humidity data, resulted in an RMSE of 0.200°C, MSE of 0.004°C, MAE of 0.152°C and MAPE of 0.4%. A combined 1D-CNN and LSTM model predicted electrical energy usage with an RMSE of 32.436 Joules, MAE of 25.382 Joules, MSE of 0.002 Joules and MAPE of 0.2%. These findings, published in a Scopus indexed journal, aim to improve the care of premature infants.

Keywords: infant incubator, Internet of Things, artificial intelligence, control system, web

หน่วยให้ด้วยย่อ

Thesis Title	Development of Learning Packages Titled Youth Water Conservation to Promote Science Problem-Solving Ability and Learning Achievement of Primary 5 (Grade 5) Students
Name - Surname	
Program	Curriculum Development and Instructional Innovation
Thesis Advisor	
Academic Year	2023

ABSTRACT

The objectives of this research were: 1) to develop a set of learning packages on youth water conservation, 2) to develop and try out a set of learning packages, 3) to find the effectiveness of the learning packages according to ^{standard} criteria of 80/80, 4) to compare the science problem-solving ability of primary 5 (grade 5) students before and after using the learning packages, and 5) to compare learning achievements in science and technology subjects of primary 5 students before and after using a set of learning packages.

ให้ระบุ
ชื่อจังหวัด

The samples in this study were 26 students in primary in the second semester of 2022 academic year at Sarika school, ^{provinces} using cluster random sampling. The research tools were questionnaires, interview forms, set of learning packages, a test, the science problem-solving ability, and achievement test. The statistics used in the analysis were mean, standard deviation, efficiency values E_1/E_2 , and t-test.

The research ^{results} showed that: 1) the basic information and the need to develop a set of learning packages were studied and the activities using local water sources were organized through the inquiry process, 2) a set of learning packages titled Youth Water Conservation was developed, including instructions, teacher's guide, teacher-student role, lesson plans, achievement test, science problem-solving abilities test, knowledge sheet, and activity sheet, 3) the efficiency of learning packages was 82.05/81.35, which was a higher level of standard at 80/80, 4) the science problem-solving ability after studying through a set of learning packages was higher than before learning at the statistical significance level of .01, and 5) the learning achievement in science and technology subjects after studying through a set of learning packages was higher than before learning at the statistical significance level of .01.

Keywords: learning packages, science problem-solving ability, learning achievement

Thesis Title	Confirmatory Factor Analysis of Digital Skills of Educational Administrators in the 21 st Century under the Secondary Education Service Area Office Pathum Thani
Name – Surname	
Program	Educational Administration
Thesis Advisor	
Academic Year	2024

ABSTRACT

This research aimed to: 1) examine the components of digital skills of educational administrators in the 21st century under the Secondary Education Service Area Office Pathum Thani and 2) validate these digital skills components for educational administrators in the 21st century under the Secondary Education Service Area Office Pathum Thani.

A sample of 392 teachers under the Secondary Education Service Area Office Pathum Thani was selected for this research using multi-stage sampling. The research instrument was a questionnaire based on a 5-point Likert scale, with an overall reliability coefficient of 0.988. The data were analyzed using statistical software to calculate frequencies, percentages, means, standard deviations and confirmatory factor analysis.

The research findings revealed that: 1) The digital skills components of educational administrators in the 21st century under the Secondary Education Service Area Office Pathum Thani consisted of five components: competence, knowledge, experience, attributes and competency. 2) The validation results confirmed that the model was consistent with empirical data, with the following fit indices: Chi-Square=71.801, df=58, p-value=0.105, Goodness of Fit Index (GFI)=0.981, Adjusted Goodness of Fit Index (AGFI)=0.939 and Root Mean Square Error of Approximation (RMSEA)=0.025.

Keywords: digital skills, educational administrators, 21st Century

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Thesis Title Learning Management Using Task-Based Learning Approach Integrated with Total Physical Response to Enhance Listening and Speaking Skills of Primary 6 (Grade 6) Students

Name – Surname

Program Curriculum Development and Instructional Innovation

Thesis Advisor

Academic Year 2024

ABSTRACT

The objectives of this research were to: 1) compare the listening and speaking skills of Primary 6 (Grade 6) students at Anurajaprasit School before and after using the Task-Based Learning approach integrated with Total Physical Response (TPR), and 2) compare the listening and speaking skills of Primary 6 (Grade 6) students at Anurajaprasit School between students using the Task-Based Learning approach integrated with Total Physical Response and students using the traditional teaching method.

The samples consisted of two classes of 60 Primary 6 (Grade 6) students at Anurajaprasit School who were selected by cluster random sampling. One group was assigned to experimental group and the other to the control group. The research instruments were: 1) a learning management plan using Task-based Learning integrated with Total Physical Response, 2) traditional lesson plans, 3) an English Listening Test, and 4) an English Speaking Test. The data were analyzed using descriptive statistics, standard deviation, and the inferential statistic t-test.

The research results revealed that: 1) listening and speaking skills students after using the Task-Based Learning approach integrated with Total Physical Response were higher than before using the Task-Based Learning approach integrated with Total Physical Response with a statistically significance level of .05, and 2) listening and speaking skills of students after using the Task-Based Learning approach integrated with Total Physical Response were higher than those of students using the traditional method with a statistically significance level of .05.

Keywords: English listening skills, English speaking skills, innovative teaching approach, Task-Based learning approach, Total Physical Response (TPR) approach

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Thesis Title	The Development Guidelines of Servant Leadership for Administrators under the Local Administrative Organization, Phang Nga Province
Name - Surname	
Program	Educational Administration
Thesis Advisor	
Thesis Co-Advisor	
Academic Year	2024

ABSTRACT

This study aimed to study: 1) the servant leadership and 2) explore the approach towards the development of servant leadership for administrators under the local administrative organization, Phang Nga province.

Research samples included 165 administrators and teachers in schools under the local administrative organization, Phang Nga province, in Academic Year 2024, derived from stratified sampling. The interview informants consisted of five school administrators under the local administrative organization, Phang Nga province. The instruments used for data collection were questionnaires and interview forms. The statistics used for the quantitative analysis were frequency, percentage, mean, standard deviation and content analysis.

The research results revealed that: 1) the overall servant leadership for administrators was at a high level and 2) guidelines towards the development of school administrators' servant leadership were as follows: (1) Awareness^{it} was found that awareness and mindfulness can solve problems correctly and adjust their identity to suit the needs of their co-workers that contribute to more success. 2) Empowerment^{it} was found that supporting personnel develop themselves further in their work, provide rewards, recognition and appreciation for their work that can drive work efficiency. 3) Selflessness^{it} was found that having a volunteer spirit helps co-workers in their work creatively that help the organization progress and 4) Service^{it} was found that cooperating with officials at all levels can improve service quality.

Keywords: servant leadership, school administrator, the local administrative organization

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Thesis Title The Academic Leadership of School Administrators under
Sa Kaeo Primary Educational Service Area Office 1

Name – Surname _____

Program Educational Administration

Thesis Advisor _____

Academic Year 2024

ABSTRACT

This research aimed to: 1) investigate the academic leadership of school administrators and 2) explore the guidelines for enhancing academic leadership of school administrators under Sa Kaeo Primary Educational Service Area Office 1.

The research sample^s derived from stratified random sampling consisted of 310 teachers in Sa Kaeo Primary Educational Service Area Office 1. The key informants included five administrators in Sa Kaeo Primary Educational Service Area Office 1. The instruments were questionnaires and interview forms. The data were analyzed using frequency, percentage, mean, standard deviation and content analysis.

The research results showed that: 1) the school administrators under Sa Kaeo Primary Educational Service Area Office 1 had a high level of overall academic leadership. 2) There were four sections of recommendations for improving academic leadership of school administrators: (1) Establishing the school's mission: To administer the school, administrators should work with the school board as a team to decide on the course of academic progress. (2) Curriculum and teaching management: In order to enhance academic performance, administrators should support and encourage learning for both instructors and students by integrating technology into learning networks and utilizing modern education management. (3) Teaching supervision: To advance academic work, administrators should support observation, interviews and document reviews. (4) Cultivating an academic environment: To monitor students' progress, administrators should use digital and online media to promote academic school, encourage academic skill activities within the school and take part in assessments at different levels.

Keywords: academic leadership, administrator, school

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Thesis Title	Development of Good Governance Administration for School Administrators under Pathum Thani Primary Educational Service Area Office 2
Name – Surname	
Program	Educational Administration
Thesis Advisor	
Thesis Co-Advisor	
Academic Year	2023

ABSTRACT

This research aimed to: 1) investigate the good governance administration of school administrators and 2) explore guidelines for the development of good governance administration for school administrators under Pathum Thani Primary Educational Service Area Office 2.

The research samples consisted of 297 teachers in Pathum Thani Primary Educational Service Area Office 2, which were obtained by simple random sampling. The instruments comprised questionnaires with a reliability value of .98 and interview forms. To analyze data, the researcher applied statistical methods consisting of frequency, percentage, mean, standard deviation and content analysis for qualitative study.

The research results revealed that: 1) development of good governance administration for school administrators under Pathum Thani Primary Educational Service Area Office 2 at a generally high level and 2) the guidelines for establishing good governance administration in six aspects, including: (1) Responsiveness: Addministrators should pay close attention to stakeholder feedback and adhere to the law. (2) Accountability: Using methodical procedures, administrators should encourage creative development in educational establishments. (3) Transparency: Addministrators should provide all relevant information to protect personal information. (4) Participation: Addministrators should give all parties a chance to participate in decision making. (5) The rule of law: Addministrators should prevent corruption, abide by the law and provide information and regulations. (6) Equity: Establishing equity and impartiality inside the school, administrators should address complaints in a methodical and timely manner.

Keywords: good governance, administrator, Pathum Thani Primary Educational Service Area Office 2

(4)

Thesis Title The Guidelines for Developing the Core Competencies of
Primary School Administrators under Pathum Thani Primary
Educational Service Area Office 1

Name – Surname [REDACTED]

Program Educational Administration

Thesis Advisor [REDACTED]

Thesis Co-Advisor [REDACTED]

Academic Year 2024

ABSTRACT

This research aimed to: 1) investigate the core competencies of primary school administrators under Pathum Thani Primary Educational Service Area Office 1 and 2) explore the guidelines for developing the core competencies of primary school administrators under Pathum Thani Primary Educational Service Area Office 1.

The research sampleⁱⁿ consisted of 324 teachers from Pathum Thani Primary Educational Service Area Office 1. The key informants included five school administrators. The instruments were questionnaires with a reliability value of 0.95 and interview forms. The researcher conducted statistics, including frequency, percentage, mean, standard deviation, and content analysis for the qualitative study.

The research results showed that: 1) elementary school administrators generally possessed a high level of core competences and 2) four areas were included in the criteria for primary school administrators' core competency development: (1) Motivation for achievement: ⁱⁿ order to organize operations to produce effective and efficient outcomes, school administrators established the vision, mission, goals, and strategies of the institution. (2) Strategic Management: ⁱⁿ School administrators gave stakeholders the chance to be involved in the planning, decision-making, and oversight of the school's operations. (3) Teamwork: ⁱⁿ School administrators needed to fairly assign tasks based on each person's talents. (4) Communication: ⁱⁿ order to motivate and foster positive connections with teachers and students, school administrators should act as positive role models.

Keywords: core competency, administrators, primary school

(4)

Thesis Title Curriculum Development Course of Traditional and Modern Handicraft Design and Production for Vocational and Technical Students

Name – Surname

Program Curriculum Development and Instructional Innovation

Thesis Advisor

Academic Year 2022

ABSTRACT

The purposes of this study were to : 1) develop a curriculum course of learning design in modern handicrafts and production, and 2) compare students' learning performance before and after teaching.

The randomly selected samples included 30 students studying art and design at a vocational-technical school in the second semester of academic year 2022. They were selected through a random sampling technique. The research instruments consisted of a learning management plan in traditional and modern handicraft design and production courses and students' learning performance tests in vocational-technical program.

The results of the study were as follows: 1) the curriculum course of learning design in modern handicrafts and production consisted of course structure, objectives, content, teaching methods, media, and course evaluation, and 2) the students' learning performance of studying art and design at the vocational-technical school after using the teaching method was significantly higher than before learning at the significance level of .05.

Keywords: curriculum development course, handicrafts, learning performance

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Thesis Title The Development of Chinese Learning Achievement by Learning Management through Game-Based Learning for Primary 5 (Grade 5) Students

Name – Surname

Program Curriculum and Learning Management Innovation

Thesis Advisor

Academic Year 2024

ABSTRACT

The purposes of this study were to: 1) compare Chinese learning achievement before and after learning management through a traditional approach for Primary 5 (Grade 5) students, 2) compare Chinese learning achievement before and after learning management through game-based learning and 3) compare Chinese learning achievement by learning management through a traditional approach and game-based learning.

The research samples were 60 of the Primary 5 (Grade 5) students, in a Buriram Primary School, Thailand in the 2024 academic year, selected by random cluster sampling. The research instruments were: 1) the learning management plans through a traditional approach; 2) the learning management plans through game-based learning and 3) a Chinese learning achievement test. The data analysis statistics were mean, standard deviation and samples t-test.

The research results showed that: 1) Chinese learning achievement after learning management through a traditional approach was higher than before at the statistical significance level of .05. 2) Chinese learning achievement by learning management through game-based learning was higher than before at the statistical significance level of .05. and 3) the Chinese learning achievement of those studying by learning management through game-based learning was higher than those studying through a traditional approach at the statistical significance level of .05.

Keywords: traditional approach, game-based learning, Chinese learning achievement

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Thesis Title Development of Augmented Reality Technology with Mathematics in Problem Solving for Primary 6 (Grade 6) Students

Name-Surname

Program Educational Technology and Communications

Thesis Advisor

Thesis Co-Advisor

Academic Year 2021

ABSTRACT

The objectives of this research were to: 1) develop and find the efficiency of augmented reality technology in mathematics for problem solving, 2) compare the learning outcomes before and after using augmented reality technology in mathematics for problem solving, and 3) the students' satisfaction with augmented reality technology in mathematics for problem solving.

The sample group used in this research were 32 students in grade 6 at Wat Khian Khet School, by using simple random sampling. The tools used in the research consisted of: 1) learning media, 2) learning management plan, 3) pre-study and post-study tests, and 4) a questionnaire to assess students' satisfaction towards learning with augmented reality technology in mathematics for problem solving. The statistics used in the data analysis were mean, percentage, standard deviation, and media performance.

The results were as follows: 1) augmented reality technology with mathematics in problem solving for grade 6 students, the average efficacy was 82.03/83.59, 2) the learning outcomes of students after learning was higher than before learning with a statistically significant difference at the .05 level and 3) students' satisfaction with augmented reality technology in mathematics for problem solving was at the highest level.

Keywords: augmented reality technology, mathematics, problem solving, primary 6 (grade 6) students

Thesis Title Development of Instructional Media Based on Augmented Reality Technology with Inquiry-Based Learning on the Genius of King RAMA IX in Art and Culture for Secondary 3 (Grade 9) Students

Name - Surname _____

Program Educational Technology and Communications

Thesis Advisor _____

Thesis Co-Advisor _____

Academic Year 2021

ควรใช้คำเดียวกัน
ให้สอดคล้องทั้งเนื้อหา

ABSTRACT

The objectives of this research were: 1) to determine the effectiveness of instructional media based on augmented reality technology, 2) to compare learning achievement before and after learning from augmented reality technology media, and 3) to determine student satisfaction towards the use of augmented reality technology media.

The sample comprised one class of forty students studying in Mathayom 3 at Teepangkorn Wittayapat Hathasarn Agricultural Secondary School under the Royal Patronage in Pathum Thani province in the second semester of the academic year 2021. Participants were drawn by simple random sampling technique. The research tools were augmented reality technology media, a pretest before and a posttest after learning from augmented reality technology media, and a questionnaire for assessing student satisfaction towards augmented reality technology media. The statistical devices used in the data analysis were mean, percentage, standard deviation, and efficiency of the instructional media.

Secondary 3

The research results revealed that instructional media based on augmented reality technology with inquiry-based learning on the genius of King RAMA IX in Art and Culture for Secondary 3 (Grade 9) students had the average efficiency according to the criteria of 85.42/97.40. The students' achievement after learning by using the media was higher than before exposing it to them. There was a statistically significant difference at the .05 level. Additionally, student satisfaction towards the augmented reality technology media was at the highest level.

Keywords: augmented reality, the genius of King RAMA 9, art and culture, inquiry-based learning

Independent Study Title Marketing Factors Influencing the Purchasing Decision Process of Chinese consumers of Ice Cream in Jiujiang City

Name - Surname

Major Subject Management

Independent Study Advisor

Academic Year 2024

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ABSTRACT

The objectives of this research are: 1) to access the level of marketing mix opinions of Chinese consumers in Jiujiang ^{city} that influence ice cream purchasing decisions, 2) to compare the ice cream purchasing decision process of Chinese consumers in Jiujiang, classified by demographic characteristics, and 3) to analyze the marketing mix factors that influence the ice cream purchasing decision process of Chinese consumers in Jiujiang city. The sample group used in this research comprised 400 Chinese consumers with experience of consuming ice cream in Jiujiang city. Quota sampling and convenience sampling were used, and an online questionnaire was used as a tool to collect data. Statistics used in the analysis include frequency, percentage, mean, standard deviation, and multiple regression analysis.

The hypotheses were tested with t-test statistics, one-way ANOVA or F-test statistics, and multiple regression analysis to find relationships between the variables. The results of the hypothesis testing ^{พบ} found that Chinese consumers in Jiujiang city of different genders, ages, and average monthly incomes have different influences on their ice cream purchasing decisions at a statistical significance at the .05 level.

In terms of the multiple regression analysis between the marketing mix factors and the ice cream purchasing decision process of Chinese consumers in Jiujiang city, it was found that the marketing mix as P-product, P-price, P-place, and P-promotion influence the ice cream purchasing decision process of Chinese consumers in Jiujiang city at the statistical significance level of .05. For multiple regression analysis between the marketing mix factors and the respective preferences of foreign ice cream brands and major Chinese ice cream brands among consumers in Jiujiang city, it was found that the market mix as P-product, P-price, P-place, and P-promotion influence the preferences of foreign ice cream brands and major Chinese ice cream brands among consumers in Jiujiang city at the statistical significance level of .05.

Keywords: marketing mix, purchasing decision process, consumer behavior, ice Cream

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Dissertation Title	The Impact of Digital Transformation and Enterprise Dynamic Capabilities on Enterprise Performance through Business Model Innovation
Name-Surname	
Program	Business Administration (Management)
Dissertation Advisor	
Academic Year	2024

ประชากร
กลุ่มตัวอย่างจากต่างประเทศ
ให้ระบุชื่อเมืองและประเทศเสมอ

ABSTRACT

Amid rapid growth of the digital economy, global enterprises face significant environmental changes. To address these challenges, Chinese enterprises are pursuing digital transformation to improve economic benefits and operational efficiency. However, existing research often overlooks the role of dynamic capabilities and business model innovation in linking digital transformation to performance.

This study uses qualitative and quantitative methods to explore the impact of digital transformation, enterprise dynamic capabilities, and business model innovation on performance in manufacturing enterprises in Heilongjiang, China. Structural equation modeling (SEM) was used to analyze the relationships among these factors.

Four key findings were made. First, digital transformation and dynamic capabilities both significantly enhance enterprise performance. Second, business model innovation mediates the impact of digital transformation and dynamic capabilities on performance. Third, digital transformation and dynamic capabilities drive business model innovation. Fourth, business model innovation further improves performance. These findings offer theoretical and practical insights for manufacturing enterprises based in Heilongjiang to navigate digital transformation and enhance performance.

Keywords: digital transformation, enterprise dynamic capabilities, business model innovation, enterprise performance, structural equation model

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CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

This study aimed to investigate the overall effect of digital transformation, enterprise dynamic capabilities, and business model innovation on enterprise performance, with a particular focus on the performance of manufacturing enterprises in Heilongjiang Province, ^PChina, within the context of the digital economy. The study revealed through empirical analysis that digital transformation has become a critical approach for enterprises to enhance their performance. The widespread application of digital technology not only optimizes enterprises' operational processes but also significantly enhances resource allocation efficiency, assisting enterprises in responding to market changes. With the ongoing advancement of technology, digital transformation allows enterprises to attain greater flexibility and adaptability, thereby enabling sustained growth and the maintenance of a competitive edge in a dynamic market environment.

In this context, the dynamic capabilities of enterprises have been confirmed to be an important factor affecting enterprise performance. In a rapidly changing external environment, enterprises must have the ability to adjust resources and strategies to cope with changing market demands. The results show that enterprises with strong dynamic capabilities are more able to seize market opportunities and promote business development through internal innovation. Dynamic capabilities not only help enterprises adapt to changes in the external environment, but also promote the innovation capabilities of enterprises in technological changes and market competition.

In addition, this study found that business model innovation plays an important mediating role in the mechanism of digital transformation and enterprise dynamic capabilities on enterprise performance. Digital transformation has promoted the innovation of business processes and created new value-added models, while the dynamic capabilities of enterprises have helped enterprises to identify and exploit these innovation opportunities more effectively. Business model innovation enables enterprises to seek new growth points and competitive advantages in the global market and improves the performance of enterprises by redefining the delivery methods of products and services.

Thesis Title Guidelines for the Development of Health Agritourism
Marketing during the Post COVID-19 Pandemic

Name – Surname

Program Business Administration (Marketing)

Thesis Advisor

Academic Year 2024

เติมเครื่องหมาย colon

ABSTRACT

This research aims to: 1) study the influence of tourism competitiveness on tourists' intention to revisit health agritourism attractions, 2) study the influence of tourism competitiveness on tourists' intention to recommend health agritourism attractions and 3) determine guidelines for developing competitiveness in health agritourism.

The sample group consisted of 620 tourists who traveled for health agritourism purposes in the area of Muang District, Prachinburi Province, and sampled using the quota random sampling method and accidental sampling. The research tools were questionnaires. Statistical methods used in data analysis were mean, percentage, standard deviation, and structural equation model analysis.

The results of the research found that: 1) in terms of the influence of the competitiveness of tourist attractions on tourists' intention to revisit health agricultural tourism attractions, for Phumbhubejhr, Herbal and Health Wisdom Learning Park, Bang Decha, Prachinburi Province, it was found that the Supporting factors resource had the most influence at .578, and for Mai Ked Homestay, it was found that Destination policy, planning & development had the most influence at .702; 2) in terms of the influence of the competitiveness of tourist attractions on tourists' intention to recommend, by word of mouth, health agritourism tourism attractions, for Phumbhubejhr, Herbal and Health Wisdom Learning Park, Bang Decha, Prachinburi Province, it was found that Supporting factors resource had the most influence at .614 and for Mai Ked Homestay, it was found that the Destination management had the most influence at .727, and 3. in terms of determining guidelines for developing competitiveness in health agritourism, they should address 5 factors, such as: 1) Inherited resources, 2) Created resources, 3) Supporting factors and resources 4) Destination management and 5) Destination policy, planning and development.

It is suggested that entrepreneurs use these guidelines for developing the competitiveness of health agricultural tourism to manage their organizations effectively.

Keywords: development, health agritourism, marketing, COVID-19 pandemic

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ควรเลือกใช้คำให้ถูกต้องสอดคล้องทั้งเนื้อหา

ผลวิจัยต้องถูกพบ
พบตัวเองไม่ได้
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จะใช้คำไหน ? คำนึงให้ใจกว้าง แต่ข้อเรื่อง
95 คำว่า .

Independent Study Title	Influence of Transformational Leadership and Job Satisfaction on Turnover Intention in Enterprises: A Case Study of China Construction International
Name - Surname	
Major Subject	Management
Independent Study Advisor	
Academic Year	2024

ABSTRACT

The purposes of this study were: 1) to examine the relationship between transformational leadership, job satisfaction and turnover intention and 2) to explore the influence of transformational leadership and job satisfaction on turnover intention. The research instrument was a questionnaire. The sample used in this study consisted of 400 China Construction International workers who were recruited by a purposive sampling method. The statistics employed in the data analysis were minimum, maximum, mean, standard deviation, Pearson correlation, and multiple linear regression.

The study results indicate that: 1) both transformational leadership and job satisfaction had a negative correlation with turnover intention at the .01 level of significance 2) transformational leadership significantly influenced turnover intention ($p < .001$, $\beta = -.530$) and 3) job satisfaction also significantly influenced turnover intention ($p < .001$, $\beta = -.227$). The findings show that transformational leadership has a moderately negative influence on turnover intention. Meanwhile, transformational leadership has a weak negative influence on the turnover intention decisions of China Construction International employees.

Additionally, job satisfaction was also correlated with intentions to resign from the organization. These results emphasize the need for effective leadership practices and tactics to boost job satisfaction, retention, and organizational stability.

Keywords: transformational leadership, job satisfaction, turnover intention, organizational behavior, human resource management, China construction international

Independent Study Title	Service Quality Factors of the Student Development Division that Affect the Satisfaction of Students in the Faculty of Business Administration at Rajamangala University of Technology Thanyaburi
Name-Surname	
Major Subject	Marketing
Independent Study Advisor	/
Academic Year	2024

ให้ขึ้นระหว่างข้อด้วย **comma (,)**

ABSTRACT

This study aimed: 1) to examine the level of service quality factors provided by the student development division that affect the satisfaction of students in the Faculty of Business Administration at Rajamangala University of Technology Thanyaburi, 2) to compare student satisfaction based on personal factors, such as gender, program, and field of study, and 3) to study the influence of service quality on student satisfaction.

sample เดิม s
แทนกลุ่มตัวอย่าง
จำนวนหลายคน

The sample consisted of 374 undergraduate students. The research instruments were questionnaires divided into three sections, covering personal factors, service quality, and student satisfaction. Data were analyzed using descriptive statistics, such as mean and standard deviation, t-test, F-test for comparing differences, and multiple regression analysis to examine the relationships between and influences of various factors.

The results for objective 1 indicated that the service quality provided by the student development division was at a high level, with the "empathy" dimension having the highest average score. For objective 2, the comparison of satisfaction between groups revealed that students in the 2-year transfer program were significantly more satisfied than those in the 4-year program, while there was no significant difference in satisfaction between male and female students. For objective 3, the analysis of the influence of service quality factors showed that "reliability," "responsiveness," and "empathy" all had a significant impact on student satisfaction, while "tangibles" and "assurance" did not have a significant effect.

Keywords: service quality, student development affairs, satisfaction

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ในประโยค คำที่ไม่ใช่คำเฉพาะ ให้พิมพ์ด้วยตัวพิมพ์เล็ก

ลบ comma (,)

หน้า and ข้อสุดท้าย

Independent Study Title The Influence of Logistics Factors on User Satisfaction
with the Services of Private Delivery Companies among
Online Retail Entrepreneurs in Pathum Thani Province

Name – Surname

Major Subject Logistics and supply chain management

Independent Study Advisor

Academic Year 2024

ABSTRACT

This study aims: 1) to examine the degree that logistics factors affect the satisfaction of online retail entrepreneurs in Pathum Thani Province with private delivery services; 2) to compare the satisfaction of online retail entrepreneurs based on personal factors, such as gender, age, and education level; and 3) to study the influence of logistics factors on the satisfaction of online retail entrepreneurs.

The sample consisted of 384 online retail entrepreneurs, and the research instrument was a questionnaire divided into three parts covering personal factors, logistics factors, and satisfaction with private delivery services. Descriptive statistics such as mean and standard deviation were used for data analysis, along with t-tests and F-tests for comparing differences, and multiple regression analysis to explore relationships and the influence of various factors.

The results related to the first objective revealed that overall logistics factors were rated high, with service technology receiving the highest average score. For the second objective, a comparison of satisfaction across groups showed that respondents aged 41–60 and over 60 years ^{old} were significantly less satisfied with delivery services compared to other age groups. No significant differences in satisfaction were found based on gender, education level, income, or marital status. Regarding the third objective, the analysis revealed that cost, service technology, transportation time, and product safety significantly influenced the satisfaction of online store operators, while the service factor did not have a significant impact.

Keywords: satisfaction, cost, service technology

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อายุ 41 years old เสมอ

Dissertation Title	Relationship between Sustainable Human Resource Management and the Professional Identity of University Teachers and their Job Performance Under the Appointment System in China
Name – Surname	
Program	Business Administration
Dissertation Advisor	
Academic Year	2024

จัดพิมพ์ตัวเลขหรือตัวหนังสือให้สอดคล้องทั้งเนื้อหา

ABSTRACT

The purpose of this study is to investigate: 1) the effects of sustainable human resource management (SHRM) on teachers' professional identity and job performance in Chinese public undergraduate universities under the appointment system, 2) the mediating role of professional identity between SHRM and job performance, 3) the mediating role of self-efficacy between SHRM and teachers' professional identity, and 4) the mediating role of organizational identity between professional identity and job performance.

The research methodology employed a mixed-methods approach, consisting of qualitative interviews with ⁸eight teachers and a quantitative survey of 610 teachers. Qualitative data were analyzed using analytical induction, while quantitative data were analyzed using SPSS and AMOS for hypothesis testing.

The results indicated that SHRM had a positive effect on teachers' professional identity and job performance under the appointment system. Additionally, professional identity mediated the relationship between SHRM and job performance, self-efficacy mediated the relationship between SHRM and professional identity, and organizational identity mediated the relationship between professional identity and job performance. All results were statistically significant at the .001 level.

Keywords: appointment system, university teachers, sustainable human resource management, professional identity, job performance

(3)

หัวข้อการค้นคว้าอิสระ	พฤติกรรมที่เป็นมิตรต่อสิ่งแวดล้อมที่ส่งผลต่อประสิทธิภาพการทำงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อมของพนักงานในองค์กรภาครัฐแห่งหนึ่ง
ชื่อ - นามสกุล	
วิชาเอก	การจัดการ
อาจารย์ที่ปรึกษา	
ปีการศึกษา	2567

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาปัจจัยการวัดพฤติกรรมที่เป็นมิตรต่อสิ่งแวดล้อมที่ส่งผลต่อประสิทธิภาพการทำงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อมของพนักงานในองค์กรภาครัฐแห่งหนึ่ง ทำการเก็บข้อมูลจาก พนักงานกรมการเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อม ทั้งหมดจำนวน 400 คน มีผู้ตอบแบบสอบถามจำนวน 323 คน เครื่องมือที่ใช้ในการเก็บข้อมูลคือ แบบสอบถาม ทำการวิเคราะห์ข้อมูลด้วยสถิติเชิงพรรณนา ได้แก่ ค่าความถี่ ค่าร้อยละ ค่าเฉลี่ย และค่าส่วน เบี่ยงเบนมาตรฐาน และสถิติเชิงอนุมาน ได้แก่ การเปรียบเทียบค่าเฉลี่ยระหว่างกลุ่มตัวอย่างสองกลุ่มที่เป็น อิสระจากกัน การวิเคราะห์ความแปรปรวนทางเดียว และการวิเคราะห์สมการถดถอยพหุคูณ ผลการศึกษา

ปัจจัยการวัดพฤติกรรมที่เป็นมิตรต่อสิ่งแวดล้อม ได้แก่ พฤติกรรมการรับความคิดริเริ่ม (Taking initiative) การเปลี่ยนแปลงพฤติกรรม (Transforming) พฤติกรรมความยั่งยืน (Sustainability) และ พฤติกรรมการมีอิทธิพลต่อผู้อื่น (Influencing others) มีอิทธิพลต่อประสิทธิภาพการทำงานของพนักงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อมอย่างมีนัยสำคัญที่ระดับ 0.05 พฤติกรรมการอนุรักษ์ (Conserving) และ พฤติกรรมหลีกเลี่ยงอันตราย (Avoiding harm) ไม่มีอิทธิพลต่อประสิทธิภาพการทำงานของพนักงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อมอย่างมีนัยสำคัญที่ระดับ .05

ปัจจัยส่วนบุคคลที่ประกอบด้วย เพศ อายุ ระดับการศึกษา อัตราเงินเดือน ประเภทตำแหน่ง และระดับตำแหน่ง และ ระยะเวลาการปฏิบัติงาน ส่งผลต่อพฤติกรรมที่เป็นมิตรต่อสิ่งแวดล้อมไม่แตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ .05 ปัจจัยส่วนบุคคล อายุ ระดับการศึกษา ประเภทตำแหน่งระดับตำแหน่งงาน อัตราเงินเดือน และระยะเวลาการปฏิบัติงาน ส่งผลต่อประสิทธิภาพการทำงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อมด้านไม่แตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ .05 โดยที่ปัจจัยส่วนบุคคลเพศ ส่งผลต่อประสิทธิภาพการทำงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อมด้านคุณภาพงานแตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ .05

คำสำคัญ: พฤติกรรมที่เป็นมิตรต่อสิ่งแวดล้อม ประสิทธิภาพการทำงาน การเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อม องค์กรภาครัฐ

Independent Study Title Employee Green Behaviors that Affect Employee Performance in a Government Organization Concerned with Climate Change and the Environment

Name - Surname

Major Subject Management

Independent Study Advisor

Academic Year 2024

ABSTRACT

The purpose of this research is to study the factors measuring environmentally friendly behavior that affect the performance of employees involved in climate change and the environment in a public sector organization. Data were collected from 323 respondents out of 400 employees of the Department of Climate Change and Environment. The tool used to collect data was a questionnaire. Data were analyzed using descriptive statistics, including frequency, percentage, mean, and standard deviation along with inferential statistics, including comparing means between two independent sample groups, one-way analysis of variance, and analysis of multiple regression equations.

From the study results, it was found that the factors measuring environmentally friendly behavior, including taking initiative behavior and behavior change (Transforming), sustainability behavior (Sustainability), and the behavior of influencing others (Influencing others), all significantly influence the work performance of employees regarding climate change and the environment at the .05 *significant level of*

Conversely, conservation behavior (Conserving) and behavior avoiding harm (Avoiding harm) do not have a significant influence on the work performance of employees regarding climate change and the environment at the .05 *statistical significance level of*. It was found that personal factors, including gender, age, education level. In terms of personal factors, age, education level, position type, job level, salary rate, and length of service do not significantly affect work performance in the areas of climate change and the environment at the .05 level, while the personal factor of gender significantly affects work efficiency and quality regarding climate change and the environment at the .05 *statistical significance level of*.

Keywords: environmentally friendly behavior, performance of employees, climate change and the environment, public sector organization

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เติมภาษาอังกฤษเพื่อให้สอดคล้องกับบทคัดย่อ
ไทยคำว่า "นัยสำคัญที่ระดับ"

เติมภาษาอังกฤษเพื่อให้สอดคล้องกับบทคัดย่อ
ไทยคำว่า "อย่างมีนัยสำคัญทางสถิติที่ระดับ"

Independent Study Title Factors Related to Organizational Commitment of Personnel at Rajamangala University of Technology Thanyaburi According to the Educational Quality Criteria for Excellence (EdPEX)

คำว่า Staff เป็น สมุหนาม (collective noun) ซึ่งสามารถใช้ได้ทั้งในรูปเอกพจน์และพหูพจน์ โดยปกติไม่เติม S เพราะหมายถึงกลุ่มของพนักงานอยู่แล้ว อย่างไรก็ตาม ในบริบทนี้มี academic and support staff จำนวน 337 คน ซึ่งอาจมาจากหลายคณะหรือหลายหน่วยงาน ดังนั้นคำว่า staff จึงเติม S เพื่อแสดงถึงกลุ่มพนักงานจากหลายหน่วยงาน หรือหลายกลุ่มของพนักงาน

ABSTRACT

This independent study aims to examine: (1) the relationship between personal factors and employee organizational commitment, (2) the relationship between motivational factors and employee organizational commitment, and (3) the relationship between work-related factors and employee organizational commitment at Rajamangala University of Technology Thanyaburi, according to the Educational Quality Criteria for Excellence (EdPEX).

The sample group consisted of 337 academic and support staff working at Rajamangala University of Technology Thanyaburi. Data were collected using a questionnaire that had been validated for content accuracy and reliability. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used, along with inferential statistics, such as the independent t-test, one-way ANOVA, and multiple linear regression analysis.

The findings indicated that the overall level of employee organizational commitment was moderate. Comparisons of personal factors, such as gender, age, education level, job function, employee type, and average monthly income, revealed no significant differences in organizational commitment. The motivational factors, assessed at a high level, showed that job success, respect or acceptance, job characteristics, responsibility, and career advancement significantly influenced job success at a .05 significance level. Similarly, work-related factors, including compensation and benefits, work environment, relationships with supervisors and colleagues, work experience, training, job security, and participation in management, significantly influenced job success at a .05 significance level.

Keywords: employee organizational commitment, motivation, work performance

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บทคัดย่อภาษาไทยเขียนว่า "นัยสำคัญทางสถิติ" ดังนั้นจึงต้องเติม "statistical" (ทางสถิติ) ในภาษาอังกฤษเพื่อให้สอดคล้องกับภาษาไทย

Independent Study Title	Using Communicative Activities to Enhance the English-Speaking Skills of the First-Year High Vocational Students at Prachin Buri Technical College
Name - Surname	
Program	English for Career Development
Independent Study Advisor	
Academic Year	2022

ABSTRACT

This research aimed to: 1) improve speaking skill achievement of first-year high vocational students at Prachin Buri Technical College using communicative language activities, and 2) investigate the students' satisfaction with the use of the communicative language activities.

This quasi-experimental study employed a one-group pretest-posttest design to examine the students' speaking skill achievement. The participants, obtained by purposive sampling, were 34 first-year high vocational students who enrolled in the course of English for Communication in the first semester of the academic year 2022. Four research instruments were employed in the research: 1) a pre-test and post-test, 2) seven lesson plans of 4 topics, 3) a speaking evaluation form, and 4) a satisfaction questionnaire. The pre-test and post-test scores were analyzed using mean, standard deviation, and dependent t-test to determine whether the mean scores before and after using the communicative activities were significantly different using SPSS. The data collected by the questionnaire were analyzed using mean and standard deviation and were interpreted based on a 5-point scale.

The research results revealed the following. 1) Regarding the difference between the results of the pre-test before and the post-test after using the communicative language activities, the students' speaking skills were significantly different ($\text{sig} = .00, p < .05$). The average mean score of the students' post-test (13.15) was higher than that of the pre-test (7.88). 2) The students' satisfaction with the use of the communicative language activities was high with the overall average scale of 4.40, and the standard deviation was .49. According to the results, using the communicative language activities was effective in enhancing the students' speaking skills.

Keywords: Communicative activities, English speaking skills, High vocational student

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คำสำคัญตามรูปแบบให้จัดพิมพ์ด้วยตัวพิมพ์เล็กยกเว้นชื่อเฉพาะ

สาขาวิชาวิทยาศาสตร์และเทคโนโลยี

Thesis Title	Hydrothermal Conversion of Empty Palm Fruit Bunches into High Quality Activated Carbon
Name-Surname	
Program	Chemical Engineering
Thesis Advisor	
Thesis Co-Advisor	
Academic Year	2024

ABSTRACT

This research aimed to study the conversion of empty palm fruit bunches (EFB) through the hydrothermal process and chemical activation to produce high-quality hydrochar and activated carbon, as well as to evaluate their carbon dioxide adsorption capacity. The study examined the hydrothermal process under various conditions, including the temperatures of 160, 200, 240 and 280 °C, the reaction time of 2, 4, 6 and 8 hours, and the use of H_2SO_4 and H_2O_2 as activators. The high-quality hydrochar was also subjected to a second chemical activation process using KOH and $ZnCl_2$ as activating agents.

The experimental results showed that the optimal conditions for producing high-quality hydrochar included the use of H_2O_2 as an activator at 280 °C with the reaction time of 2 ^h hours (O-EFB240h2). The hydrochar obtained under these conditions had a product yield of 34.24%, a fixed carbon content of 71.36%, a specific surface area of 479.19 m^2/g , a total pore volume of 0.727 cm^3/g and an average pore size of 3.06 nm. Furthermore, the hydrochar showed a significant increase in oxygenate functional groups.

When the hydrochar prepared with H_2SO_4 at 240 °C for 2 ^h hours (A-EFB240h2) was chemically activated with KOH at 800 °C for an hour (A-EFB240KOH), the resulting activated carbon had a specific surface area of 1,348 m^2/g , a pore volume of 0.830 cm^3/g and an average pore size of 2.4 nm. This activated carbon showed a carbon dioxide adsorption capacity of 3.879 wt%, comparable to that of commercial activated carbon.

Keywords: hydrothermal process, chemical activation, hydrochar, activated carbon

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หัวข้อคุณูปนิพนธ์ การตรวจสอบตำหนิของเนื้อสะโพกไก่ในโรงงานชำแหละ โดยใช้เทคนิค
การประมวลผลภาพ

ชื่อ - นามสกุล

สาขาวิชา วิศวกรรมศาสตร์ (วิศวกรรมเครื่องกล)

อาจารย์ที่ปรึกษา

ปีการศึกษา 2567

พิมพ์ตรงนี้ .

บทคัดย่อ

คุณูปนิพนธ์นี้พัฒนาระบบอัตโนมัติที่ใช้เทคนิคการประมวลผลภาพและการเรียนรู้ของเครื่องเพื่อตรวจจับและประเมินตำหนิบนซากไก่ในโรงงานชำแหละอย่างแม่นยำ โดยมีเป้าหมายในการแก้ไขข้อจำกัดของการตรวจสอบด้วยคน และเพิ่มประสิทธิภาพในการควบคุมคุณภาพ

วัตถุประสงค์ของการวิจัยประกอบด้วย: 1) การทดสอบพารามิเตอร์ที่เหมาะสมสำหรับการตรวจสอบคุณภาพของซากไก่ 2) การประเมินประสิทธิภาพของการวิเคราะห์ภาพสองมิติในการตรวจจับตำหนิบนผิวซากไก่ และ 3) การออกแบบระบบอัตโนมัติที่ใช้การเรียนรู้ของเครื่องในการตรวจจับตำหนิจากวิดีโอ ระบบที่พัฒนานี้วิเคราะห์ข้อมูลจากสภาพแวดล้อมการผลิตจริง โดยใช้กระบวนการแบ่งส่วนภาพ การสกัดคุณลักษณะ และการจำแนกตำหนิ พร้อมวิเคราะห์เชิงสถิติเพื่อเปรียบเทียบประสิทธิภาพระหว่างผู้เชี่ยวชาญและอัลกอริทึม

ผลการวิจัยแสดงให้เห็นว่าระบบที่พัฒนาขึ้นสามารถตรวจจับตำหนิได้อย่างแม่นยำด้วยประสิทธิภาพสูงถึง 95% โดยไม่ต้องมีขั้นตอนการเตรียมข้อมูลล่วงหน้า เช่น การลบพื้นหลัง นวัตกรรมนี้สามารถช่วยลดต้นทุนการผลิตและยกระดับคุณภาพสินค้า นอกจากนี้ ยังสามารถนำไปใช้ในการปรับปรุงการจัดการฟาร์มและป้องกันปัญหาคุณภาพที่อาจเกิดขึ้นในอนาคต

คำสำคัญ: การประมวลผลภาพ การควบคุมคุณภาพ การตรวจสอบเนื้อสะโพกไก่ การเรียนรู้ของเครื่อง ระบบอัตโนมัติในโรงงาน การตรวจจับตำหนิ

ควรใช้คำให้สอดคล้องกันตลอดทั้งเนื้อหางานวิจัย ทั้งภาษาไทยและภาษาอังกฤษ

Dissertation Title Inspection of Bruises on Chicken Legs in the Slaughter Factory Using Image Processing Technique

Name-Surname

Program Engineering (Mechanical Engineering)

Dissertation Advisor

Academic Year 2024

ไม่ตรงกัน

ไม่ตรงกัน

ABSTRACT

This dissertation involved the development of an automated system using image processing techniques and machine learning to accurately detect and assess defects on chicken carcasses in a slaughterhouse. The research attempted to address the limitations of manual inspection and enhance the efficiency of quality control.

The objectives were: 1) to test the appropriate parameters for inspecting the quality of chicken carcasses, 2) to evaluate the performance of 2D image analysis in detecting defects on the surface of chicken carcasses, and 3) to design an automated system using machine learning for defect detection from video footage. The developed system analyzed data from real production environments using image segmentation, feature extraction, and defect classification. Statistical analysis was performed to compare the performance of human experts with the algorithm.

The results indicated that the developed system accurately detected defects with an efficiency rate of 95%, with no requirement of pre-processing steps such as background removal. This innovation could reduce production costs and improve product quality. It could also enhance farm management and prevent quality issues in the future.

Keywords: image processing, quality control, chicken thigh inspection, machine learning, slaughterhouse automation, defect detection

Dissertation Title Development of Harvesting System for White Shrimp Vannamei
 Using Centrifugal Pump Technique

Name-Surname [REDACTED]

Program Engineering (Mechanical Engineering)

Dissertation Advisor [REDACTED]

Academic Year 2024

ABSTRACT

dissertation

This thesis focuses on solving problems of and improving efficiency on the harvesting process of white shrimp, which is a crucial step in the shrimp aquaculture industry that has affected white shrimp quality, sustainability, and global competitiveness. The traditional harvesting method was the use of seine net, collecting the shrimp by hand which caused stress and damage to the shrimp. It reduced the market value and increased risk of diseases such as EMS (Early Mortality Syndrome) that caused huge economic losses.

The research aims to develop a shrimp harvesting method using a centrifugal pump technique with the aim of reducing damage, and increasing harvest efficiency. The study covers fluid mechanics in closed systems, together with the linkage between engineering parameters and shrimp biomechanics. The research method consisted of 7 experiments: a study of shrimp biomechanics, a study of harvesting on medium to large farms, a study of shrimp transportation in long pipes, a simulation of flow patterns in a pond, a field test of harvest quality and a field test of harvest quality by pipeline transportation.

The results of the study revealed that the shrimp withstood a pulling force of 11.57 Newtons. Traditional shrimp harvesting had a damage of 5%. Shrimp transport reduced oxygen to only 0.9 ppm, and the aerator arrangement could collect up to 91% of sediment. Using a 2-channel impeller in the centrifugal pump provided the best flow and reduced shrimp damage the most. Using centrifugal pumps reduced damage caused by traditional harvesting by 99.7% and increased harvesting efficiency by 2.3 times.

Keywords: white shrimp, shrimp harvesting method, centrifugal pump technology, shrimp transportation, shrimp quality

หน่วย Newton ให้เขียนรูปย่อ

(4)

เนื้อหาบทคัดย่อภาษาไทยและภาษาอังกฤษจะต้องมีความหมายสอดคล้องกัน

หัวข้อวิทยานิพนธ์	การเพิ่มประสิทธิภาพของตัวเร่งปฏิกิริยานาโนลูโคซีนสำหรับย่อยสลาย สีย้อมด้วยแสงโดยการเติมฟองอากาศขนาดเล็กในน้ำ Enhancing <i>Efficacy of</i> Nano-Leucoxene Photocatalyst for Dye Degradation Using Ultrafine Bubbles
ชื่อ - นามสกุล	
สาขาวิชา	วิศวกรรมวัสดุ
อาจารย์ที่ปรึกษา	
ปีการศึกษา	2567

คณะกรรมการสอบวิทยานิพนธ์

ประธานกรรมการ

กรรมการ

กรรมการ

กรรมการ

คณะวิศวกรรมศาสตร์ มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี อนุมัติวิทยานิพนธ์ฉบับนี้เป็น
ส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาโท

คณบดีคณะวิศวกรรมศาสตร์

หัวข้อวิทยานิพนธ์ การเพิ่มประสิทธิภาพของตัวเร่งปฏิกิริยานาโนโคชินสำหรับย่อยสลาย
 สีย้อมด้วยแสงโดยการเติมฟองอากาศขนาดเล็กในน้ำ

ชื่อ - นามสกุล

สาขาวิชา วิศวกรรมวัสดุ

อาจารย์ที่ปรึกษา

ปีการศึกษา 2567

บทคัดย่อ

อุตสาหกรรมที่มีการใช้สีย้อมมีการเติบโตอย่างมากจากความต้องการทางด้านสิ่งทอ และ
 ผลิตภัณฑ์อื่น ๆ ที่จำเป็นต้องใช้เพื่อให้เกิดความสวยงาม อุตสาหกรรมเหล่านี้จำเป็นต้องบำบัดน้ำเสียที่มี
 การเจือปนของสีย้อมก่อนปล่อยออกสู่ระบบนิเวศ งานวิจัยนี้ศึกษาการเพิ่มประสิทธิภาพของวัสดุนาโน
 จากแร่ลูโคชินที่สามารถย่อยสลายสีย้อมได้ด้วยกระบวนการโฟโตแคตะไลติกโดยการเติมฟองอากาศ
 ขนาดเล็กในกระบวนการ

วัสดุนาโนถูกเตรียมจากแร่ลูโคชินด้วยกระบวนการไฮโดรเทอร์มอลที่อุณหภูมิ 105 องศา
 เซลเซียส เป็นเวลา 24 ชั่วโมง จากนั้นเผาตัวอย่างที่ได้ที่อุณหภูมิ 200-800 องศาเซลเซียส จากนั้น
 ตรวจสอบชนิดและปริมาณสารประกอบ ลักษณะสัณฐานวิทยา โครงสร้างผลึก การเปลี่ยนแปลงน้ำหนัก
 โดยอาศัยคุณสมบัติทางความร้อน และพื้นที่ผิวจำเพาะของตัวอย่างที่ได้ ตัวอย่างที่ได้จากการสังเคราะห์
 และเผาถูกประเมินประสิทธิภาพการกำจัดสีย้อมเมทิลีนบลูด้วยการบวนการโฟโตแคตะไลติกภายใต้แสง
 อัลตราไวโอเลตรวมกับการเติมฟองอากาศขนาดเล็ก

ผลการวิเคราะห์พบว่านาโนลูโคชินที่ได้จากการสังเคราะห์มีลักษณะเป็นกลุ่มก้อนที่มีการ
 รวมตัวกันของท่อนาโนและแผ่นนาโน ซึ่งมีองค์ประกอบโครงสร้างผลึกส่วนหนึ่งเป็นไททานเตต ($\text{H}_2\text{Ti}_3\text{O}_7$)
 และเมื่อถูกเผาที่อุณหภูมิสูงพบว่าลักษณะสัณฐานวิทยาเปลี่ยนจากท่อและแผ่นนาโนเป็น แท่งนาโน
 และกลายเป็นอนุภาคทรงกลมขนาดมากกว่า 1 ไมครอน ผลการประเมินประสิทธิภาพการกำจัดสีย้อม
 เมทิลีนบลู พบว่านาโนลูโคชินที่ไม่ผ่านการเผามีประสิทธิภาพสูงที่สุด โดยประสิทธิภาพการกำจัดสีย้อมมี
 แนวโน้มลดลงตามอุณหภูมิการเผาที่สูงขึ้นเนื่องจากการเผาส่งผลให้เกิดการเปลี่ยนแปลงรูปร่างของ
 อนุภาคทำให้มีพื้นที่ผิวลดลง นอกจากนี้ฟองอากาศขนาดเล็กยังสามารถเพิ่มประสิทธิภาพของ
 นาโนลูโคชินได้อย่างมีนัยสำคัญ

คำสำคัญ : การกำจัดสีย้อม แร่ลูโคชิน กระบวนการโฟโตแคตะไลติก ไททานเตต ฟองอากาศขนาดเล็ก

Thesis Title Enhancing Nano-Leucoxene Photocatalyst for Dye Degradation
Using Ultrafine Bubbles

Name - Surname

Program Material Engineering

Thesis Advisor

Academic Year 2024

ABSTRACT

The textile industry and other sectors using dyes are growing rapidly, increasing the need for effective wastewater treatment to address dye contamination before discharge into the environment. This study aims to synthesize nano-leucoxene for photocatalytic dye treatment and improve its efficiency by adding ultrafine bubbles.

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Nanomaterials were prepared from leucoxene minerals using a hydrothermal method at 105 °C for 24 ^h hours, followed by calcination at temperatures ranging from 200 to 800 °C. The samples were analyzed for composition, morphological characteristics, crystal structure, weight changes based on their thermal properties, and specific surface area. Their efficiency in removing methylene blue dye was evaluated through a photocatalytic process under ultraviolet irradiation combined with ultrafine bubbles.

The analysis results revealed that the synthesized nano-leucoxene exhibited an aggregated structure comprising clusters of nanotubes and nanosheets. Upon high-temperature calcination, a shift in morphological characteristics was observed from nanotubes and nanoplates to nanorods and larger spherical particles exceeding 1 micron in size. Evaluation of methylene blue dye removal efficiency indicated that uncalcined nano-leucoxene demonstrated the highest efficacy. However, the efficiency of dye removal decreased with increasing calcination temperature due to changes in particle shape, resulting in a reduced surface area. Furthermore, the utilization of ultrafine bubbles significantly enhanced the efficiency of nano-leucoxene.

Keywords: dye removal, leucoxene, photocatalytic process, titanate, ultrafine bubbles

Thesis Title Enhancement of Dye Decolorization by Photocatalytic Process Using Hybrid AC/ TiO₂ Doped with Ag and Micro/Nanobubble Aeration

Name - Surname

Program Civil Engineering

Thesis Advisor

Academic Year 2022

ABSTRACT

This research aimed to evaluate the dye decolorization efficiency in synthetic wastewater with three types of dye, i.e., Indigo Carmine (IC), Methylene Blue (MB), and Reactive Black 5 (RB5) by the photocatalytic process using AC/ 0.1% Ag- TiO₂ as photocatalyst under UVA light source and micro/nanobubbles (MNBs) aeration.

The AC/0.1%Ag-TiO₂ photocatalyst was prepared by the sol-gel process, and the physical properties of the photocatalyst were investigated via SEM, EDS, and BET, respectively. To verify the dye decolorization efficiency by the photocatalytic process, the experiment was systematically conducted under eight control conditions.

The results showed that the dye decolorization efficiency of IC, MB, and RB5 in synthetic wastewater by the photocatalytic process using AC/0.1%Ag-TiO₂ under UVA light source and MNBs aeration achieved maximum efficiency. By adding MNBs, the dye decolorization efficiency of IC, MB, and RB5 could be increased at 87.03%, 83.78%, and 81.67%, respectively. These results indicated that MNBs contributed to the formation of stronger oxidizing agents such as •OH and •O₂⁻ in larger quantities. The Langmuir-Hinshelwood (L-H) kinetic model was used to describe the kinetics of the dye decolorization. The kinetic rate constants (*k*) were 1.39, 0.92, and 0.28 μM·min⁻¹, and the surface adsorption constants (*K*) were 0.04, 0.04, and 0.05 μM⁻¹ for IC, MB, and RB5, respectively.

Keywords: Indigo Carmine, Methylene Blue, photocatalytic process, Reactive Black 5

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คำสำคัญภาษาอังกฤษให้พิมพ์ด้วยตัวพิมพ์เล็กยกเว้นชื่อเฉพาะ

ใส่ % เฉพาะ
ตัวสุดท้าย

ลบ % ออก

Thesis Title Development of Microemulsion of Kaffir Lime Oil Using Bio-based Block Copolymer

Name – Surname

Program Applied Chemistry

Thesis Advisor

Thesis Co-Advisor

Academic Year 2024

ABSTRACT

The research aimed to prepare photocrosslinkable bio-based block copolymers consisting of polymethacrylic acid-block-polycinnamyl methacrylate-block-poly methacrylic-iodide acid as polymer shells for Kaffir lime oil.

First, cinnamyl alcohol which was used as a biomonomer was functionalized with methacrylic anhydride via an esterification reaction to create a double bond named cinnamyl methacrylate. Then, it was copolymerized with methacrylic acid using solution iodine transfer polymerization, resulting in polymethacrylic acid-block-polycinnamyl methacrylate-block-poly methacrylic acid (PMAA-*b*-PCMA-*b*-PMAA) with a molecular weight of 2800 g/mol and a chain length equals to 7: 6: 7 units. After that, PMAA-*b*-PCMA-*b*-PMAA (BioSurf) was used as polymer shells to encapsulate Kaffir lime oil in a microemulsion system cooperated with Tween 80 (surfactant; Surf) and ethanol (co-surfactant; CoSurf). The ratio of Kaffir lime oil and Surf-CoSurf was varied from 1: 9 to 9: 1 (wt). The Surf_{mix} which consisted of BioSurf, Surf and Co-Surf at the ratio of 1: 1: 1 (wt) was dispersed in water at 400 rpm for 5 minutes. The optimal contents of oil, Surf_{mix}, and water were 6, 24, and 70%, respectively. The nanocapsule size was about 68 nm with -3.64 mV. After UV curing at 254 nm for 120 minutes, the dimerization of cinnamyl groups in PCMA was confirmed by the UV spectroscopy. The result revealed that the absorbance peaks of cinnamyl groups at 283 and 294 nm significantly decreased. It was found that 10% of the encapsulated Kaffir lime oil slowly permeated into skin after 1 hour. In addition, the oil also had anti-inflammatory effects with the percentage of inhibited nitric oxide production in macrophage cells at 32.07±0.63. Moreover, nanocapsules did not show toxicity to human skin cells at the concentrations of less than or equal to 1 v/v%. Finally, the microemulsion was thermodynamically stable at 4, 30, and 45 °C.

The encapsulation of Kaffir lime oil in microemulsion might be an alternative option for cosmetic products and related applications.

Keywords: Kaffir lime oil, microemulsion, bio-based polymer, block copolymer, photocrosslinkable