



2019

THEi Student Applied Research Presentations SARP 2019

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INTERNATIONAL CONFERENCE ON APPLIED EDUCATION, TECHNOLOGY AND INNOVATION

AETI 2019 Student Applied Research Abstracts

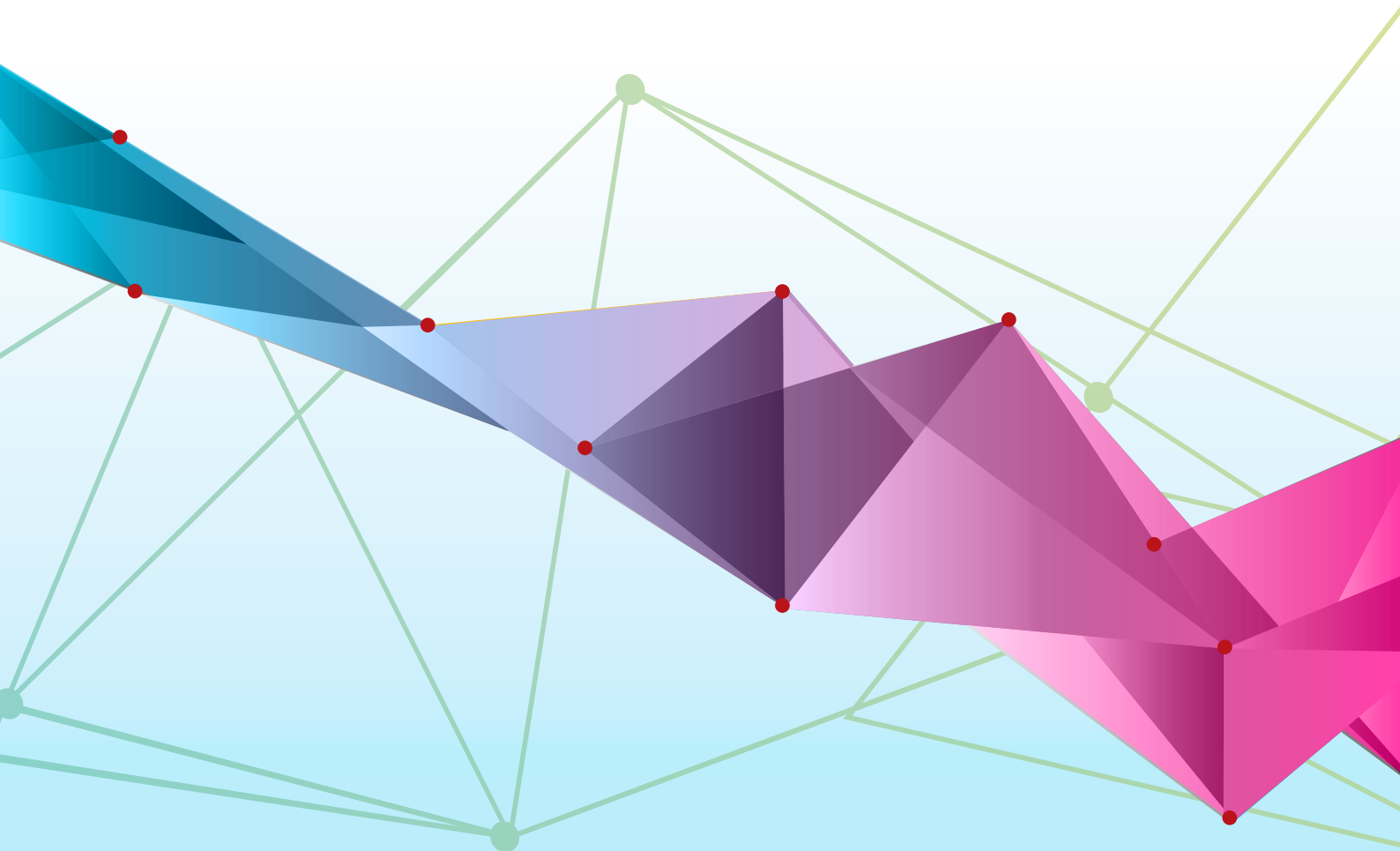
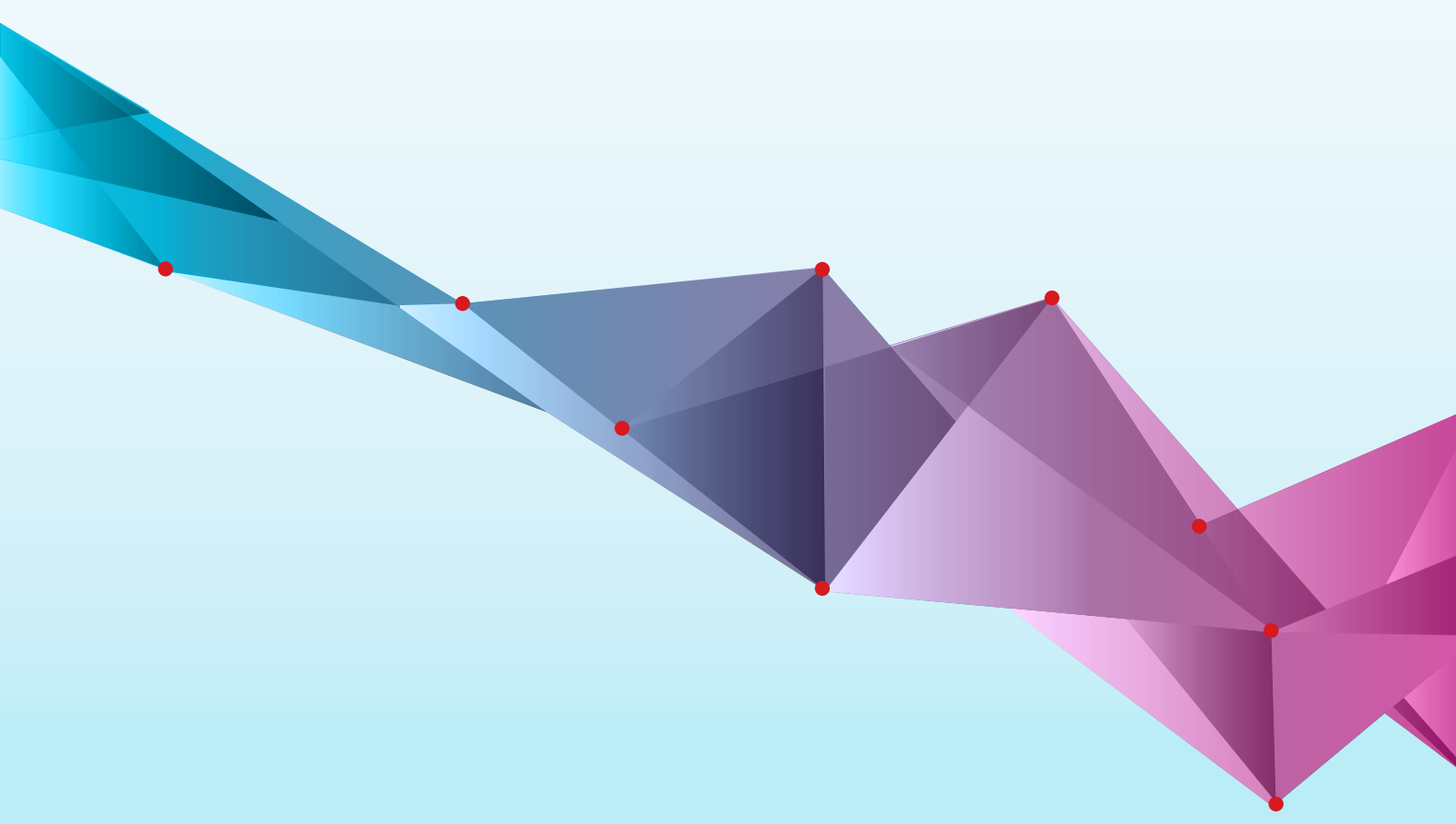


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AETI 2019 Student Applied Research Poster Presentation is fully supported by a grant from the Research Grants Council of the HKSAR, China (Project No. UGC/IDS25/16).



Faculty of Design and Environment

Department of Design

Department of Environment

ReFurn – Sustainable Furniture Project

Abstract

Research Question

In today's society where the problem of abandoned furniture is getting serious, solutions are needed to stop the waste and turn abandoned furniture into useful objects again. This study is aimed at exploring the following research questions:

- What makes the problem of abandoning furniture so serious in Hong Kong?
- How is furniture waste harming the environment?
- How can the current technology help reduce furniture waste?
- Can 3D-printed objects be used as joints for waste furniture parts and turn them into useful and valuable objects?

Objective

- To find the reasons for the furniture waste problem in Hong Kong;
- To explore the environmental harm brought by the waste;
- To explore the possibility of reducing furniture waste by means of recycling and reusing;
- To search for new technology which can reuse waste furniture parts and turn them into new objects; and
- To explore the possibility of applying 3D printing technology to reuse the furniture parts to add higher value to the new objects.

Methodology

The data collection consists of 3 main methodologies:

- Quantitative data collected through public surveys and questionnaires which aim to collect information about users' behaviour towards the use and purchase of furniture;
- In-depth interviews with professionals from the 3D printing industry and the furniture manufacturing industry for possible solutions;
- Observation in factories which use 3D printing technology to produce objects and furniture so as to understand the potential of applying the technology to make joints for waste furniture parts.

Preliminary Findings

I have collected data about the causes of furniture waste problem and how 3D technology is capable of turning waste furniture parts into valuable objects. The results showed that consumerism encouraged people to see furniture as tools for self-expression that could be easily replicable. Recycling of furniture is not cost-effective as a piece of furniture usually contains different materials which need to be disassembled. As 3D printing technology becomes more mature for market-ready products, it seems to be a suitable medium for joining waste furniture parts.

The project is now focusing on applying the technology to produce a prototype which is made of furniture parts and 3D prints. I am confident that in the next phase of research, my new 3D-printed furniture joints can be more cost-effective and valuable.



FAN Wei Jian

BA (Hons) in Product Design

Faculty of Design and Environment

About the Investigator

My name is Kurt FAN. I am a product design student and my FYP supervisor is Mr Nicholas KWOK. I am enthusiastic about design and art. I wish to equip myself with design skills to create things that can serve people and change our behaviour. Being able to create objects that are either physically or psychologically helpful for people is my privilege. In the future, I wish to be a responsible product designer who will always care about people and the environment.

The Application of User Behaviour and Interface in Product Design

Abstract

Research Question

Since product interface design can determine customers' decisions and users' satisfaction, the analysis and application of interface design play important roles in product design. This research examines the concepts and theories of user experience, user behaviour and product interface design. Key research questions are 1) What are the design elements that determine users' satisfaction? 2) Can current analytical tools truly reflect users' needs and decisions? and 3) How to refine analytical tools with the use of an integrated conceptual framework developed from the literature review and data collection?

Objective

The research objectives are 1) to understand user experience and user behaviour through the application of a design theoretical framework and analytical tools; and 2) to enhance product design experience through design theories.

Methodology

Questionnaire surveys, interviews and observations are employed to collect data on users' purchase preference, and the factors which determine users' experience and satisfaction. The questionnaire is used to collect primary data on the opinions and buying behaviour of the general public. Interviews and observations are conducted to have an in-depth investigation into users' behaviour. The findings will facilitate understanding of the need of Hong Kong users and the development of analytical tools.

Preliminary Findings

Based on my initial observation and preliminary research, I have come up with a dataset called the "Hierarchy of Product Values on Hong Kong Market". The dataset was developed to describe the different values of a product interface design. In particular, the basic levels were "Attractiveness values", followed by "Satisfaction values" and "Psychological values". By studying the design theoretical framework, a "Weighted Value Opportunity Analysis" was developed for analyzing a product interface design.

About the Investigator

I am William FONG. My interest in users' behaviour and product interface design has driven me to conduct this research. My research supervisors are Mr Nicholas KWOK and Ms Tristance KEE. Creating good user experience and satisfaction are my ultimate goals in product design; therefore, I am interested in UX and UI design. I would like to be a user-centered product designer after graduation.



FONG Wai Yam

BA (Hons) in Product Design

Faculty of Design and Environment

Analyzing the Opportunities and Challenges of Bilateral Clothing Trade in the Belt and Road Initiative of ASEAN: An Empirical Approach



IP Tsz Shun

BA (Hons) in Fashion Design

Faculty of Design and Environment

Abstract

Research Question

This study employs the gravity trade model to examine the important factors in the clothing trade patterns (especially export), as the Belt and Road Initiative (BRI) develops the relationship between ASEAN, the Association of Southeast Asian Nations, and China during the period of 2007 to 2017. The findings suggested that the trade competitiveness of China's neighbors, i.e., both more and less developed ASEAN, were affected by the emergence of clothing trade. The implications of China's Belt and Road Initiative are also discussed.

Objective

- To evaluate the patterns of clothing export in China's primary clothing exporters since the 1980s;
- To examine the national relationship and the clothing trade performance between China and ASEAN;
- To examine and analyze the opportunities and challenges of clothing export trade between China and ASEAN; and
- To develop the gravity trade model for explaining and describing the past and future clothing trade of China.

Methodology

In the analysis of international trade, other than a sequence of standard variables representing importers' and exporters' characteristics such as national incomes and physical distance, the modified gravity trade model can expound factors which can aid or prevent trade among trading nations, e.g., influence of political groupings, institutional forces, cultural issues, etc. The gravity trade model is considered dynamic and flexible to embrace factors of returns to scale and production differentiation.

About the Investigator

I am Rachel IP. My interest in China fashion industry and business trading inspires me to do this project. Dr Eve CHAN, my supervisor, gave me useful advice in the planning stage. I hope I can enrich the project by applying the gravity trade model to the current trading issues in China, especially the BRI.

The Impact of Electronic Word-of-mouth on Online Fashion Shopping: An Extension of the Theory of Planned Behaviour

Abstract

Research Question

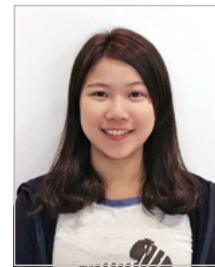
Scholars adopted the Theory of Planned Behaviour (TPB) to illustrate the interrelationship between consumers' motivations and buying behavior. Since the high popularity of the Internet has rapidly reinforced the trend of online shopping, some studies indicated that the TPB was a validated model to investigate human intention of their behaviour for the e-commerce business (George, 2004). Meanwhile, Alibaba is the biggest online trading platform in China which has exerted influences on the trend of the fashion industry. Some studies showed that the electronic word-of-mouth (eWOM) could facilitate the decision-making process of consumers in online apparel shopping. This research proposes to evaluate the relationship between eWOM and online fashion shopping with the TPB.

Objective

The main purpose of the current research is to ascertain the correlation between eWOM and the intention of online apparel buying with the TPB as well as investigate whether eWOM has influenced the decision-making process of consumers during online apparel shopping. It also aims to facilitate the e-business in the fashion industry by designing a comprehensive conceptual framework of eWOM.

Methodology

This research is purposed to adopt a quantitative study. Data were collected by sending out questionnaires to 100 Generation Z consumers who have at least once shopped for fashion products on Taobao. They were asked questions about the application of eWOM. The participants were also required to give ratings on their planned behavior in respect of online fashion shopping.



LAI Wing Yan

BA (Hons) in Fashion Design

Faculty of Design and Environment

About the Investigator

I am Esther LAI. In an era that is full of advanced technology, I constantly apply eWOM during online shopping. Sometimes I am rather skeptical about the authenticity of eWOM and this has aroused my curiosity to do this study. Dr Eve CHAN, my supervisor, provided guidance for me to develop the research. I hope this study can be beneficial and useful for the development of e-commerce business in the fashion industry.

An Exploratory Study of Digital Textile Printing Development in the Fashion Industry



LAM Fat Yung Freya

BA (Hons) in Fashion Design

Faculty of Design and Environment

Abstract

Research Question

Starting from the 1980s, digital textile printing is one of the technologies that replaces rotary repeat printing (Carden, 2015) as it can increase productivity and achieve sustainability. The concept of sustainable fashion and a business model for customization are global trends in the fashion industry. Digital textile printing becomes popular and plays an important role in textile printing. However, the limitations of this printing method in terms of costs, brightness of color, etc. have not yet been solved. Therefore, understanding the development of digital textile printing technology and solutions to its limitations are very essential for the sustainability of garment printing. The research questions of this paper focus on the future trend and the major limitations of digital textile printing for sustainable fashion as well as the need for customization.

Objective

The purpose of this study is to clarify and classify the development goals of digital textile printing, discover the future trend of this technology as well as find the possible ways to solve its limitations.

Methodology

This study will adopt a qualitative approach by interviewing and obtaining the views of professionals such as factory producers, textile designers who create images for digital textile printing and fashion designers who use digital textile printing for their designs.

About the Investigator

I am Freya LAM. My interests are fashion and textile design as well as music; these inspire me to do this project. Dr Arthur CHAN, my supervisor, gave me useful advice in the planning stage. Insights into the future trend of textile digital printing could benefit the development of my future career.

Crops on Demand Service Platform

Abstract

Research Question

In Hong Kong, there is an increasing demand for organic vegetables but people have no time and place. Organic labels vary and some products are not truly organic vegetables. People are worried about the quality and safety of organic vegetables. Some of them choose to grow food by themselves. This project will provide a solution to deal with the lack of trust in organic vegetables.

Objective

The current study is to build trust in organic vegetables through watching CCTV videos of the planting process on the Internet. Also, people can enjoy the fun of online planting in order to promote organic life.

Methodology

The implementation of this project includes three items, i.e., website, event, and installation. The website provides a CCTV video of the planting process to ensure that vegetables grown are truly organic. The event and the installation are for promoting the website. The tone of voice in the video is playful and interesting. The project connects the three items with five vegetable cartoon characters, which represent the main vegetables sold on the website. The design also incorporates Hong Kong features.



LAM Wing Chi

BA (Hons) in Advertising

Faculty of Design and Environment

About the Investigator

I am Sunny LAM. My interest in design inspires me to do this project. Ms May YANG, my supervisor, gave me useful advice in the planning stage. I hope people can enjoy truly organic planting from the website, which provides a CCTV video recording the planting process of their orders, so they can eat with confidence. I have joined many design activities since I was in Form 4, so I have a lot of experience in design. I want to be a designer after graduation.

The Study of Luxury Fashion Brands among the Wealthy Young Generation in China



LAU Wing Lam

BA (Hons) in Fashion Design

Faculty of Design and Environment

Abstract

Research Question

The demand for quality living and the desire for luxury goods have been significantly boosted among Chinese under the impact of the tremendous economic growth in China in recent decades. Owing to the increments in domestic household savings and earnings, youngsters are willing and able to purchase high-end fashion products to show off their riches and taste. Apart from the economic aspects, there is limited research on the impact of Key Opinion Leaders (KOLs) on consumer buying motivations in the luxury market. The findings of this study will help the luxury brands to increase their market share and brand value.

Objective

The purpose of the study is to find out the relationship between different self-concepts and buyers' motivations for luxury fashion. Moreover, the relationship between different self-concepts and the effects of KOLs on luxury fashion brand consumers will be identified. The relationship between different buying motivations and the effects of KOLs on luxury fashion brand consumers will be established.

Methodology

Around 100 Chinese luxury fashion brand consumers will be invited to do the self-administrated questionnaire. Then, ANOVA will be used for analyzing data to obtain results. The study will provide significant information for fashion marketing teams to modify their marketing strategies to gain higher revenue and better branding.

About the Investigator

I am LAU Wing Lam, a student from the stream of Fashion Management. I like listening to music, watching movies and shopping. I am eager to be part of the fashion industry after graduation. Dr Arthur CHAN, my supervisor, gave me useful advice and continuous support in the planning stage. I hope the valuable findings of this study can help me develop my future career.

Flexible Design in Complex Living Space

Abstract

Research Question

Since Hong Kong is facing the problem of compact living space, how it may have affected the living quality becomes my main thesis. The problem may also affect the growth and development of children who live in complex space. My research questions are: (1) How can design impact the living quality in Hong Kong which has high population density? (2) How can children's lives be improved with good interior furniture and spatial design? (3) What is the user experience associated with children's use of design?

Objective

The objective of this project is to study the different existing demand and requirements of living space by Hong Kong families. In a family with children, the need for space is different among different age groups, yet the living space is limited in Hong Kong. This project will be carried out with the following objectives to understand the need of users and create flexible designs to solve the living problem in Hong Kong: (1) to study the socio-economic backgrounds of Hong Kong children living in compact space; (2) to produce flexible designs that can improve the current living conditions; and (3) to study the relationship between design and social issues.

Methodology

I will invite about 100 people to participate in this study to investigate the living environment of Hong Kong people and their demand for living space. All the subjects will fill out a questionnaire online; the questions involve the education and socio-economic backgrounds, ages, and other preferences of the participants.

Interviews will be another research method chosen for a qualitative study of the opinions and user behaviour of the target subjects. Three interviewees will be invited to an interview session with audio-recording. The recording will be used for analyzing the content related to the topic. Ethical approval will be sought and the recording will be destroyed upon completion of this research.

Preliminary Findings

Based on my previous study, the living space, the interaction between adults and children and their behaviour affected one another. The living space for families with children needs to be modified regularly as the users have high demand for flexibility in daily life. Changes after having children affect the distribution of living space. My previous findings explained that flexible designs were needed by families living in complex living space nowadays.

About the Investigator

I am Annbeth LEE. I hope this project can provide the right method for solving the complex living situations in Hong Kong nowadays. Mr Paul LO, who is the supervisor of this project, provided me with all sorts of valuable advice in the research methods. I also consulted my Programme Leader, Ms Tristance KEE, about this abstract and she encouraged me to submit it. I like illustrating, taking photos and watching movies in my spare time and I get inspiration from these activities. I would like to be a designer of industrial products and work in the field of graphics.



LEE Tsui Lam

BA (Hons) in Product Design

Faculty of Design and Environment

Sustainable Furniture Design in Everyday Life

Abstract

Research Question

According to the Environmental Protection Department, solid waste in landfills contains 44% household waste per day. About 4% of the household waste is wood or rattan. Since wood and rattan can be recycled, they are a major source of materials for the furniture manufacturing industry in Hong Kong. This research aims to look at the sustainability issues related to recycled materials for the furniture industry.

Objective

The main objective of this project is to study the furniture disposal situation in Hong Kong and the need of users and sustainable businesses, to understand the sustainable furniture market and their difficulties. The research will apply some of the sustainable theories in practice. Therefore, to design a furniture that can help people raise the awareness of sustainability in the environmental or social aspect will be the final deliverable.

Methodology

The research will use both qualitative and quantitative research methodologies. First, questionnaires and semi-structured interviews will be used to collect data for this project. A total of 50 questionnaires had been received in this research as a pilot study in my previous semester. The questionnaires asked about the furniture disposal experience and the view of sustainable furniture. Next, the semi-structured interviews will be conducted either on THEi campus or in factories.

Preliminary Findings

Preliminary findings showed that a large amount of furniture in Hong Kong had been disposed by 1) home moving, 2) construction site waste, and 3) defects and damages from furniture companies. Although the furniture is still in good condition, some of the furniture is thrown away to the landfills, resulting in wastage. From my pilot study's questionnaire, people displayed little knowledge on sustainable furniture and how to recycle furniture. There is a lack of understanding that upon treating the wood and rattan in a proper fashion, the materials can be used to make new design that can be durable and aesthetically beautiful.



MA Ying Kiu

BA (Hons) in Product Design
Faculty of Design and
Environment

About the Investigator

I am Christine MA. My FYP supervisor is Mr Andy LAI, who gave me advice and the right direction for the project. My programme leader also revised my abstract and modified the research objectives and methodology. My interests are drawing and sketching which help me gain more confidence in design. I hope my design can help change people's lifestyles. My career goal is to become a good product designer.

A Future Green Transportation System for Hong Kong

Abstract

Research Question

An environmentally green transportation system can be beneficial to socially sustainable development. The research questions are below: how to help develop a more sustainable green transportation system in Hong Kong? What are the key considerations in designing a better transportation system? Are technology, human interaction and spatial relationship key considerations in designing a transportation depot and how are they implemented?

Objective

The main purpose of this study is to create a new form of eco-transportation depot for future Hong Kong society so as to propose a healthy and efficient personal transportation mode. My objectives are:

- to apply the latest technology, user experience theory and sustainable concept to the design; and
- to broaden product design thesis to include some environmental considerations.

Methodology

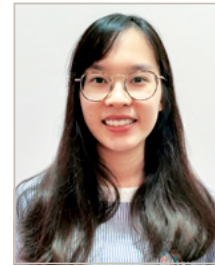
I will use a mixed research method. 1) Data will be collected by sending out questionnaires to 200 people to understand their daily travel patterns and user experience. 2) Secondary data will be collected from public accessible sources about the usage and weaknesses of the current transportation system. 3) 6-8 citizens will be invited in a semi-structured interview to comment and provide some evaluations on the design direction.

Preliminary Findings

My preliminary findings showed that Hong Kong has a well-developed metro transport network but the policy, road design and facilities are not environmentally friendly. Although Hong Kong has promoted some green policies such as share-bike system, it has a low usage rate because most people do not find it user-friendly. Therefore, a good green transportation system needs to be people-oriented and socially integrated.

About the Investigator

I am Denise POON. My interest in green transportation inspires me to do this project. Mr Henry YU, my supervisor, gave me useful advice on this project. I always think that cycling is not just a leisure activity. However, from my friends' opinions, Hong Kong is not a bicycle-friendly city, so they do not dare cycle to school. This inspires me to explore a healthier, sustainable and user-friendly transportation system for our daily commute.



POON Lok Yung Denise

BA (Hons) in Product Design

Faculty of Design and Environment



The Value and Potential of Sensory Design in the Workplace



SHE Ho Yin

BA (Hons) in Product Design
Faculty of Design and
Environment

Abstract

Research Question

Sensory design is a strategy to make good use of human sense's reaction and demands, to renovate or create related sensory stimulation characteristics through the existing products. It is able to improve the living value and user experience. Therefore, I am motivated to understand and investigate the possibilities of developing the latest design trend and strategy to optimize the working environment.

Objective

(1) Explore the relationship between sensory design and workplace products; (2) Study the basic psychology and human behavior based on the sensory concept; (3) Understand the activities in the workplace; (4) Study the workplace product cases and its sensory characteristics; (5) Find out people's needs in the workplace; (6) Find out the value of sensory design given to users in the workplace, including the satisfaction of spiritual needs or problem solving abilities; and (7) Explore product opportunities in the workplace.

Methodology

Data were collected by questionnaires and a quantitative analysis through digital, graphs and charts statistics. Different groups of people, such as specific age groups with common results or comparable data, were also organized for analyzation. The 5 senses graph created by Mr Jinsop LEE will be utilized as one of the important methods to organize the data and compare with the 5 sensory design directions from the hypothesis. The related answers to the questions need to be connected to the related sense criteria for a high-efficiency analysis. Based on the connection between the authenticity of the hypothesis and the results of the questionnaires, the observations and interviews will focus on the in-depth coding analyzation based on the users' behavior, emotions and patterns. During the interviews and observations, some of the specific content will be highlighted with a different colour based on the different sensory elements of their answers or records.

Preliminary Findings

The results of the questionnaires showed that the design elements of the multisensory perceptual objects were effective in optimizing the sensory design in the workplace, thus creating a comfortable, productive, safe and healthy environment.

About the Investigator

I am Dennis SHE. I like sketching and watching science-fiction movies which inspire my designs, as I believe many successful designs are based on unconstrained and crazy ideas. I am very concerned about the aesthetics of a product and its user experience. I hope I can bring this thought into my career to improve and lead the trend of product aesthetics, thus improving the human lifestyle and user experience in the future product design industry. My FYP supervisors, Mr Nicholas KWOK and Mr Paul LO as well as the programme leader, Ms Tristance KEE have all given me a hand.

Psychological Study of Consumer Behavior: The Relationship between Sales Representatives' Voice and Customers' Decisions on Buying Mid-level Brands in Hong Kong

Abstract

Research Question

Studies of the effect of salespeople's voice on the compulsive and impulsive buying of Generation Y female customers and their decision making process are limited. This paper puts forth two main contributions to marketing: (1) offline; the use of salesforce's voice in mid-brand, and (2) online; the selection of the most attractive voice for the e-robots and artificial intelligence. The result of this paper brings insights into the mid-level fashion brands, as well as other industries, and the use of voice. A perfect combination of voice frequency and intensity is also expected to be discovered from the research.

Objective

The purposes of the study are mainly to develop the relationship between salespeople's voice frequency and wavelength and impulsive, compulsive buying type customers. Furthermore, we would uncover the relationship between salespeople's voice wavelength and voice frequency and suggest an optimum salespeople's voice wavelength and voice frequency.

Methodology

Based on empirical studies of an authentic enterprise, Michael Kors, and previous statistical literature of compulsive and impulsive decision making, a methodological framework with sales representatives' voice would be formulated. Quantitative research and a questionnaire with 40 recording samples are utilized to compare the similarities and differences between compulsive and impulsive buying types of females in Generation Y.



TAM Pui Yan Moon

BA (Hons) in Fashion Design

Faculty of Design and Environment

About the Investigator

I am Moon TAM. I am very interested in Hong Kong fashion. Owing to my passion for fashion, I would spend my whole life learning and contributing to the fashion industry. Project writing helps me develop logical and philosophical thinking, which is very useful for my career development. Dr Arthur CHAN, my supervisor, gave me useful advice and guidance in the planning stage of my project.

Reducing Disposable Tableware through Better Design

Abstract

Research Question

Hong Kong is known as a food paradise and a famous tourist city. More than 100 food events are organized in Hong Kong every year. However, when people are enjoying the food, they are also creating a huge amount of waste—single-use plastic tableware. In these big events, a lot of disposable tableware is used and then sent to the landfills. There is a need to design an eco-friendly tableware that can reduce the use of plastic tableware for food events.

Objective

The main purpose of this research is to study if there is a potential need to introduce a system and specially designed tableware to food-related activities in Hong Kong so as to eliminate the use of disposable tableware.

Methodology

Ten questionnaires and one face-to-face interview were completed by the participants of the Hong Kong Food Tasting Festival. Data collected from the questionnaires and interview were used to analyze the usage of disposable tableware in the activity and participants' attitudes towards the green tableware. Two observations were conducted to study the phenomenon and users' behaviour in the food event.

Preliminary Findings

Preliminary findings showed that disposable tableware was commonly used in food events and reusable tableware was found to be inconvenient when people were standing or carrying heavy stuff in the food event. As people care about the environment, they are looking for new methods to reduce the use of disposable tableware.



TANG Kit Wan

BA (Hons) in Product Design
Faculty of Design and Environment



About the Investigator

I am Kit TANG. I enjoy travelling and eating very much. When I went to different places and had delicious meals, I found that people used a lot of disposable items. These experiences inspire me to do this project. I hope I can design a helpful system and cutlery to decrease the use of disposable tableware. I want to be a product designer who can design something good for the Earth and human beings. Mr LEE Kwok Lang, my supervisor, helped me a lot in this project and he gave me useful advice on choosing the topic.

A Study of Generalization and Difficulties of the Gender and Sexual Minority in Hong Kong



TANG Mang Moe

BA (Hons) in Advertising
Faculty of Design and
Environment

Abstract

Research Question

Gender and sexual minority rights are a controversial and debatable issue that is strongly opposed by some unmovable stand and values. Tactical promotion and advertisement are needed to explain themselves to let others understand. I found that this topic is worth studying, as their prestige is growing. This study is linked to the gender and sexual minorities' difficulties and the movement they made to the generalization now. This study also includes the situation of the gender and sexual minorities and how they advertise their thoughts from then to now.

Objective

This study would present the situation of the sexual minority nowadays, and help people to understand the rights, the challenges and the difficulties of the sexual minority. Also, people can explore the way that sexual minority approaches the public, to raise the concerns of the public to gender and sexual minorities.

Methodology

Research was done by interviewing with qualitative methods to collect the data and ask open questions that interviewees could talk more about themselves and their journeys of being a minority.

Preliminary Findings

Findings showed that the acceptance of people in Hong Kong to the gender and sexual minorities had increased. Hong Kong has become a more welcoming society to them. But there are still some hardships.

About the Investigator

I am Moe TANG and I grew up as a queer. I did not understand what happened to myself and I always feel depressed and confused. By obtaining more information in recent years, I am motivated to work on this project so as to understand my life slightly more. I believe this project can help me to figure out the need of this community and pay off society eventually. Dr Margaret CHUI, my supervisor, helped me to clear up my confusion with practical recommendations.

Stationery, Rediscovery

Abstract

Research Question

In our contemporary society where electronic devices are popular and readily available, there is a renewed interest to revitalize traditional stationery. This research aims to examine the aesthetics and functions of stationery and to look into the social, economic, and technological factors of students in tertiary institutions.

Objective

Short term objectives:

- To design functional and beautiful stationery for tertiary students;
- To study the relationship between design of stationery and social, economic and technological factors; and
- To study the learning effectiveness and students' use of stationery.

Long term objectives:

- To study user behaviour and user experience related to stationery and students;
- To come up with a design strategy for economical stationery for university students in Asia; and
- To create a database in Hong Kong for the learning effectiveness and students' use of stationery.

Methodology

First, I will conduct online research by finding information both in the libraries and on available websites. Secondly, I will conduct observations of target audience, namely tertiary students. Thirdly, I will use both questionnaires and interviews on the selected groups.

Preliminary Findings

My initial research findings found that there were many problems with pencil sharpeners. First, it is easy to leak the pencil chips from the sharpener holes and the containers are always so dirty. Next, it is not easy to sharpen a pencil successfully and smoothly. Pencil lead will be broken and stuck inside the sharpeners easily. It takes a lot of time to sharpen a pencil. Students often feel disappointed, annoying, even angry if they cannot have good stationery to use.



TANG Tze Hei

BA (Hons) in Product Design
Faculty of Design and Environment

About the Investigator

I am Heywood TANG. I am a creative and energetic designer. I always try to generate creative, simple and timeless designs. I am a problem solver and strive to deliver high-quality and effective solutions. My interests in collecting stationery and sketching inspire me to do this project. My FYP supervisor, Mr Nicholas KWOK, my programme leader and other Product Design teachers gave me useful advice in the planning stage. I hope I can revamp users' experience of stationery, so people can express themselves more comfortably and more naturally with improved stationery. I want to be a product designer after graduation.

A Study of the Relationship between Face Shapes and the Selection Preferences of Eyeglass Frames

Abstract

Research Question

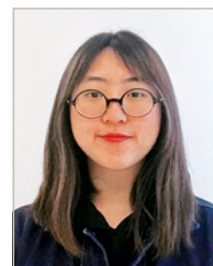
Nowadays, many people wearing glasses are not only for the need of vision correction, but for uplifting the taste and style of their personal appearances. Glasses become fashionable items and important accessories among young adults for mixing and matching in daily life. However, there is limited research to reveal the selection preferences of eyeglass frames in terms of customers' face shapes. The understanding of this relationship is very essential for fashion brands to provide appropriate designs of eyeglasses for customers and to diversify their second line products for increasing sales.

Objective

The main purpose of this study is to elucidate the correlation among face shapes, the selection preferences of eyeglass frames and the looks of various glass frames on various face shapes.

Methodology

To ensure credibility and efficiency of the study, about 30 individuals who are over 18 years old with the habit of wearing glasses would be invited to participate in this study. An experiment will be done by using Artec 3D Eva to collect data about face shapes and a questionnaire will be given afterwards for analyzing the traits of the selection preferences. Together, the two sets of data would enable us to construct a detailed examination of the correlation from different perspectives.



WAI Tsz To Crystal

BA (Hons) in Fashion Design

Faculty of Design and Environment

About the Investigator

I am Crystal WAI, a student majoring in Fashion Management. Mix and match for a fashionable look is one of my interests. It is not only a necessity of modern city life, but also an expression of both personal story and cultural history. I also love travelling, which enables me to learn the history of different countries as well. Dr Arthur CHAN, my supervisor, gave me useful advice in the planning and research process of this project.

The Impact of Streetwear Counterfeits on the Perception of Streetwear Fashion Brands for Generation Y in Hong Kong

Abstract

Research Question

Fashion counterfeits are fashion products with an imitation of the physical appearance to deceive consumers. Recently, the sales figures of counterfeits have been on the increase and they seem to be popular among the new generation. However, studies on the relationship between Generation Y's attitudes and purchase intentions towards counterfeits are limited. In this study, streetwear counterfeits will be used for evaluation as streetwear brands are going more and more mainstream in the fashion market. The effect of counterfeits on Generation Y and their perception of the value of genuine streetwear brands will be identified.

Objective

This report aims to investigate the effect of streetwear counterfeits on Generation Y's perception of streetwear brands' value and brand images. The objective of this report is to investigate the relationship between streetwear counterfeit consumption and luxury counterfeit consumption using the luxury counterfeit consumption model proposed by Phau et al. (2009). Besides, we aim to add variables to the counterfeit consumption model by investigating Generation Y's attitudes towards streetwear counterfeits and the effect of streetwear counterfeits on their perception of streetwear brands' equity, prestige status and pricing.

Methodology

An online questionnaire with 7-point Likert Scale will be adopted for answering 12 hypotheses. A sample size of 200 valid questionnaires will be received online. PLS-SEM will be used to test the path coefficient of the 12 indicators.



WONG Ho Yan Don

BA (Hons) in Fashion Design

Faculty of Design and Environment

About the Investigator

I am Don WONG. I am a passionate dancer and an enthusiastic geek. I love to venture the world and explore new things. Dr Arthur CHAN, my supervisor, gave me useful advice in the planning and research process of this project. I hope I can obtain useful information from this project and apply the learnt skills and knowledge to my future study or work.

Understanding Consumer Buying Behaviour towards Luxury Fashion Brands in Hong Kong

Abstract

Research Question

There is limited research that studies the luxury fashion industry in Hong Kong, especially the consumer buying behavior targeted on Generation Z. The present research provides information about the consumer buying behavior regarding the luxury fashion brands in Hong Kong. The relationship between brand loyalty and brand value is essential to understand the luxury fashion market in Hong Kong. This research also helps develop brand strategies for the global luxury fashion companies in order to enhance customer satisfaction and brand image.

Objective

The research aims to study consumer buying behaviour regarding the luxury fashion brands in Hong Kong. This research provides the definitions and key factors of consumers' purchase intentions, in order to explore the relationship between brand loyalty and brand value as well as their effect on the purchase intentions of consumers in Hong Kong.

Methodology

A self-completed questionnaire was used to collect primary data for this study. Around 150 young consumers who had experience in purchasing luxury fashion goods in Hong Kong were asked about their purchase intentions of luxury fashion brands, as well as the information about brand loyalty and luxury brand value. Afterwards, SPSS, correlation and descriptive analysis were used as data analysis methods to examine the hypotheses and address the research objectives.



WONG Ying Suet Cherry

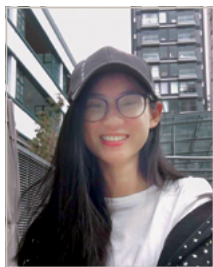
BA (Hons) in Fashion Design

Faculty of Design and Environment

About the Investigator

I am Cherry WONG. My interest in luxury designer fashion inspired me to study consumer behavior and their purchases of luxury brands. My FYP supervisor, Dr Eve CHAN provided guidance and reference materials to enrich my research content. I enjoy reading, drawing and travelling in spare time, especially to search for something interesting and mysterious around the world to broaden my knowledge. I would like to develop my career in fashion marketing in the future.

The Implementation of Inclusive Design in Hong Kong



YAU Man Han

BA (Hons) in Product Design

Faculty of Design and Environment

Abstract

Research Question

My research aims to look at public open spaces (i.e., playgrounds) in Hong Kong that is facing a rapid aging population with more risks of chronic health problems. It is important to study more on the elderly and people with disabilities, and how they use public spaces. However, standard and complementary facilities cannot serve different needs of residents; thus, the implementation of Inclusive Design is necessary to improve the experiences of all people and enable them to integrate into society.

Objective

My research objectives are: a) to design a new conceptual model of Hong Kong Inclusive Playground; b) to examine the current situation and methods to encourage more people, including disabled people, to communicate with others and integrate into society with equal opportunities; and c) to understand the social and community needs for the elderly to use public spaces.

Methodology

My research methodology will include data collection via questionnaire surveys, face-to-face interviews, data analysis and observation. I will ask 30-36 interviewees about their habits, required facilities, difficulties with using public spaces, viewpoints of disabled people, etc. A special education worker is interviewed about the capabilities and difficulties to interact with disabled people.

The data will be turned into charts and analytical figures for comparison and contrast. Important factors about usage, user experience and frequency will be examined. In-depth knowledge of the subjects can be gained by observing the target group in detail.

Preliminary Findings

I have learnt some new theories about Inclusive Playground and how it can be implemented in Product Design. The concepts include Equitable, Flexible, Simple and Intuitive, Tolerance of error, Playfulness, and Interaction. I am certain the key concepts in product design such as user experience can be my focus to design a public place to encourage people to step out of home and participate in the community.

About the Investigator

I am Yau YAU. I am interested in design and the ways to communicate with people. After studying how design is related to playgrounds, I asked myself: what is the meaning of playground and how can it be developed? The question inspires me to study this project. My supervisor, Mr Henry YU guided me and gave me effective advice. Design is a problem-solving approach and is necessary in daily life. I want to improve the life of people via designing products in the future.

A Study of the Factors Affecting the Buying Decisions of Generation Y for Luxury Items on the Internet



YEUNG Kai Lok Alvin

BA (Hons) in Fashion Design
Faculty of Design and Environment

Abstract

Research Question

The online luxury fashion sector is growing rapidly in the retail market. It is very popular in these few years, especially for some luxury goods in Hong Kong. According to the previous literature, generation Y commented that the advantages of using online shopping were security, fast delivery, comparable prices, convenience, and relatively cheaper in prices. Although there are other internal and external factors affecting the buying decisions of generation Y, the influential factors affecting their decisions on luxury fashion have not yet been established. Many studies only focused on the luxury fashion buying behavior at physical stores. The understanding of this behavior is very important for the luxury brands to devise marketing strategies for enhancing the sales of luxury items online.

Objective

The main aim of this study is to analyze the online shopping motivations of generation Y in Hong Kong for luxury fashion and to investigate the influential factors that affect the buying decisions of Generation Y on the Internet so as to understand their behaviour and characteristics.

Methodology

The quantitative approach using the theoretical background of cognitive emotion theories (CET) is employed for designing the questionnaire. Generation Y with a sample size between 100 and 150 subjects will be invited for data collection. Independent t-test and Pearson correlation will be applied for data analysis.

About the Investigator

I am Alvin YEUNG, a student of Fashion Marketing. The subject "Fashion Marketing" provides a lot of interesting information to me. It shows a lot of updated fashion concepts, collections and news from different media platforms. These can help me to enhance my fashion knowledge as well as marketing senses of fashion business. During the research process, Dr Arthur CHAN, my supervisor, gave me useful advice in the planning stage.

Barrier-free Facilities on Hong Kong Buses

Abstract

Research Question

Two specific research questions will be addressed in this research:

- 1) Are current facilities on buses sufficient for disabled people?
- 2) Can product design help them use the current facilities effectively?

The research process will start from searching the current facilities for disabled people on the bus, investigating the benefits and drawbacks of the facilities as well as designing products and services with experience and design theories to enhance the effectiveness of the facilities.

Objective

The aim is to understand the problems of disabled people (the visually impaired or people in wheelchairs) when travelling by bus and to know the existing facilities available for them on buses. The project also aims to give disabled people a better experience when they take the bus.

To improve the design of bus facilities to fulfill the needs of disabled people:

- The design criteria including safety, comfort, user-friendliness and humanization;
- To let disabled people reach the level of comfort on buses.

Methodology

This research will employ a qualitative methodology, which includes interviews and observation. The observation aims to understand the inconvenience of disabled people by viewing the process of bus taking by disabled people. The observation and interviews will be recorded by photo taking, voice recording, videos, and note jotting.

Preliminary Findings

The Hong Kong Council of Social Services (2006) mentioned that bus was the most frequently used transport for disabled people (86.4% of the respondents), so it is necessary to advance barrier-free transport on buses, and allow disabled people to enjoy more convenience.



YIM Ka Yan

BA (Hons) in Product Design

Faculty of Design and Environment

About the Investigator

I am Amy YIM. I am interested in typesetting and graphic design. I want to work in a design company in the future. Mr Sonny CHOY is my FYP supervisor.

Understanding Human Behaviour and Interaction for Product Design

Abstract

Research Question

Public furniture is a place that provides connection between people. This research aims to explore the relationship between product design and human behavior in public furniture in Hong Kong. The research questions are: What are some of the good and bad case studies in public furniture in Hong Kong and overseas? What are the relationships between design elements and human sensation, including user experience, spatial considerations and material economy? What are some of the key considerations in designing public furniture, such as safety, economy, material and size? What are the design criteria when designing public furniture as a product designer?

Objective

The main purpose of this research is to apply the product design elements to enhance the interaction between people and the built environment.

Methodology

My research methodology includes a questionnaire, case studies, desk top research, site visits, observations and interviews. The questionnaire will be approximately 10-15 minutes long, to be completed by 80-100 people. Besides, I will invite the stakeholders to come for a 30 minutes interview on key subjects in order to study the relationship among public furniture, design and human interaction.

Last but not least, I will arrange observation sessions and each will last for about 30 minutes. I will see how the general public socialize in public spaces and investigate the furniture usage preferences and user experience of public furniture. Based on the research content above, I will then design a set of furniture that will be used in a specific location.

Preliminary Findings

I found that public furniture was not only a basic product design, but could also enhance the connection between people to encourage conversations, interaction and fun. The preliminary findings enable me to feel confident that there is a need to design good public furniture, in view of the lack of interesting public furniture in Hong Kong. My initial observation motivated me to provide a design to encourage interactions and to strengthen connections between people.

About the Investigator

I am Rosie YIP. I would like to study the relationship among design, human behavior and design language. Products without instructions and yet providing smooth user experience always make me curious. I like to explore “technology in product design”, i.e., how technology can be combined with product design to benefit humans.

The project is under the supervision of Mr Paul LO.

The major design project is under the supervision of Mr Andy LAI.

Research advice is from the programme leader, Ms Tristance KEE.



YIP Ying Ting

BA (Hons) in Product Design

Faculty of Design and Environment

Taoism Affecting the Sustainable Modern Furniture Design



YIU Sau Ling

BA (Hons) in Product Design
Faculty of Design and
Environment

Abstract

Research Question

Overflowing commercial advertisements and mass media promote materialistic value to Hong Kong people. People consume extravagantly and this leads to different types of pollution with serious consequences. Furniture is indispensable with our daily activities and is also an effective way to promote Taoism. Therefore, promoting naturalist philosophy can praise our culture and raise people's awareness of in-depth sustainable thoughts.

Objective

The vital objectives of this project are to explore the relationship between furniture and sustainable development, to study the spiritual connotation of Taoism and integrate it into contemporary furniture design. The contributions of the project are to probe into the Taoism elements for designing furniture with simplicity and functionality, to educate people to be responsible to nature and to interpret product design in a cultural style.

Methodology

Data were collected via questionnaires, observations and interviews. 60 participants were invited to complete a questionnaire and express their attitudes towards Taoism, modern furniture and Chinese classical furniture and philosophy. As regards observations, IKEA and Pricerite were the places for observing the trends in modern furniture. 3 participants at age over 18 were invited to interviews to express their views on sustainable design and their attitudes towards green consumption.

Preliminary Findings

Firstly, people prefer concise furniture design with affordable prices, design aesthetic and high quality. Taoism furniture with representative traditional materials and craftsmanship can let people get closer to their spirituality in a comfortable and tranquil atmosphere.

Secondly, degradable materials with an eco-friendly life cycle are important elements for promoting sustainable furniture.

Thirdly, customers' attitude towards environmental protection and their consciousness of green consumption can be enhanced through education.

About the Investigator

I am Catina YIU. My design principles are expression of aesthetics, cohesion of emotions and respect for nature. I would like to get into the product industry in the near future and design people-oriented products with simplicity and functionality. Mr Alex KING, my supervisor, gave me useful advice which aroused my interest in studying the sustainment philosophy of Taoism to explore how it can be applied to contemporary design. The approach of the coexistence between human and nature will also be adopted.

Revitalization of the Island District – Peng Chau

Abstract

Research Question

The inconvenience of transportation makes the development of the islands later than the rest of Hong Kong. There are many potential areas that can be developed in the island area. In my final year project, I will conduct site surveys to find out the abandoned and latent areas. Based on site analyses, the concept of modern art design will be applied to Peng Chau to transform an industrial waste island into an artistic island where literature and profit coexist.

Objective

1. To enhance Hong Kong people's understanding of local art, culture and community, to build a sense of place, and achieve socially sustainable continuity;
2. To preserve and revitalize local traditions, crafts, and connections to achieve social and economic sustainability; and
3. To establish the trend of local tourism and reduce the psychological needs of Hong Kong people to travel so as to achieve environmental sustainability.

Methodology

Literature review revealed successful examples of combining human, nature, and architecture on the island. Site analyses were used to find out land uses in different periods and their ecological value. Landscape typology was used to indicate different individual, specific, and physical features of Peng Chau to define and survey the unique and individual landscapes.

Preliminary Findings

To build a sense of place, a good physical form and social activities are essential elements to create positive psychological and emotional responses that can attract people to stay. To build an artistic landscape in Peng Chau, it is suitable to transform the existing empty houses or abandoned schools and to bring new life to the land on the low level of the terrain.

About the Investigator

I am Natalie CHAN. The supervisor of my final year project is Mr Bosco SO. I am interested in landscape design, urban planning, and floral art. The reason for me to study Landscape Architecture is to build a more livable city and a beautiful environment in Hong Kong. Also, I want to use the knowledge I learnt in THEi to contribute to Hong Kong. I want to be a landscape architect and floral artist after graduation.



CHAN Hoi Kiu

BA (Hons) in Landscape
Architecture

Faculty of Design and
Environment



A Study of the Growing Situation and Soil Sciences of the Old and Valuable Trees (OVTs) by Brown Root Rot (BRR) in Hong Kong

Abstract

Research Question

Trees play a significant role in the planning and developing of sustainable and comfortable cities. However, trees can die easily if they do not receive suitable protection or are infected by bacteria such as Brown Root Rot (BRR). Hence, we should find out some successful and rapid methods to control and decrease the number of fallen trees due to the BRR.

Objective

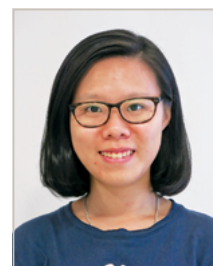
This study will deepen the understanding of BRR infections among Old and Valuable Trees (OVTs). Through convenient and professional observations, early recognition of BRR infection could aid the landscape and horticulture industry in expediting the arrangement of systemic treatments.

Methodology

There are three stages of data collection. First, to analyze and compare the health of the OVTs with 20 of the OVTs infected by BRR disease of the same species via Tree Risk Assessment Form 2. Second, to test the soil texture by hydrometer method, pH value by pH meter and soil nutrient concentration such as its available nitrogen, phosphorus, and potassium. Finally, to collect the BRR fruiting bodies and tissues from the target trees and cultivate the BRR bacteria by agar plates.

Preliminary Findings

Preliminary analysis showed that soil sciences and agar plate parts could successfully and accurately recognize the BRR infection at an early stage. However, using Tree Risk Assessment Form 2 or other observation methods is difficult and inaccurate to define the BRR infection.



**CHAN Wing Sang
Minnie**

BA (Hons) in Horticulture and
Landscape Management

Faculty of Design and
Environment

About the Investigator

I am Minnie CHAN. Both planting and researching are my interests which lead me to choose this topic for my final year project. Dr Allen ZHANG, my supervisor, gave me much beneficial advice and assistance, especially in the stage of collecting samples. I hope to find out some useful and successful methods to solve the BRR problem as well as aid the landscape and horticulture industry through the results of this research. I want to continue my study of a master's degree overseas after my graduation. I want to be a successful landscape and horticulture project manager and plant scientist in the future.

A Feasibility Study of Developing Container Houses as Interim Housing in Hong Kong

Abstract

Research Question

Interim housing aims at providing temporary housing to those who lost their homes in clearance, fire, and natural disasters. Although the demand for interim housing is increasing due to the clearance of subdivided flats, the number of interim housing units would be cut down to 3,200 because of the unworthy maintenance fees of the existing interim housing in Shek Lei. Container houses could be built at a low construction cost within a short construction time. Container houses have been used as student housing units in Amsterdam. They may be a possible means to satisfy the increasing need for interim housing.

Objective

The main purpose of this study is to evaluate whether developing container houses is a feasible way to provide interim housing in Hong Kong. It would mainly focus on time, cost, and quality. The limitations of container houses would also be evaluated in this study.

Methodology

Interviews with professionals will be conducted to find out the technical issues of converting container houses as interim housing. The pros and cons of developing container houses could be found out by discussing with professional surveyors and producers of container houses. Therefore, the limitations and advantages of developing container houses could be evaluated. The development of container houses in Amsterdam will be adopted as a case study to evaluate the feasibility of adapting container houses in Hong Kong.



CHAU Ka Kin

BSc (Hons) in Surveying

Faculty of Design and Environment

About the Investigator

I am Derrick CHAU. I am studying Surveying which inspires me to investigate the housing problem in Hong Kong. At the beginning of my study, I am confused about identifying a topic for research. Sr Lawrence TSE, my supervisor, helps me a lot by guiding me to the right direction of my study. As a Surveying student, I should read more news about the property market. I would like to become a professional general practice surveyor after graduation.

Dust to Dust: Feasibility Study of Chinese Cemetery Design for Future Hong Kong

Abstract

Research Question

The shortage of crematoriums and cemetery spaces is becoming a serious issue as the HKSAR government has projected that the number of death will increase substantially by 2037. Overseas case studies demonstrated successful cemetery landscape design that could respond to the scarcity of cemetery spaces by introducing various sustainable burial methods. Utilizing cemeteries as public spaces serves not only the dead but also the surrounding communities and residents with memorial, social, and recreational purposes.

Objective

The main purposes of this study are to review public opinions on current cemetery design and to understand their preferences for funerals and burials. It also aims to differentiate the concepts of life and death, and the taboos between China and foreign countries.

Methodology

A questionnaire is prepared and published online, targeting 100 respondents, to investigate public perception of death, cemetery spaces, and alternative burial options. The survey is divided into three parts: 1. Knowledge about green burial; 2. Death planning; and 3. Perception and suggestions towards the existing cemeteries. Interviewees are encouraged to give comments and share thoughts on spaces they desire to have in cemeteries.

Preliminary Findings

Preliminary analysis showed support from people towards green burial and the advancement of current cemetery design. From the results, the main purposes of going to cemeteries are mostly obligation and family gathering; as such, sufficient gathering spaces are demanded. People also like to have more greenery throughout the cemeteries and some meditation spaces for healing the souls.



CHENG Carina

BA (Hons) in Landscape Architecture

Faculty of Design and Environment

About the Investigator

I am Carina CHENG, an undergraduate with a great passion for nature and urban life. Being obsessed with philosophical discussions about life and death, I selected this topic for further investigation into Chinese beliefs and traditional culture. Many thanks to my supervisor, Ms Sylvia NG, who guided me through the research questions and gave useful comments on my ideas of design. This project affirms my desire to be a landscape professional who can contribute to the public realm in a civil society.

A Feasibility Study of the Hung Shui Kiu New Development Area to Assist the North West New Territories New Town Development in the Environment



CHENG Tsz Long

BSc (Hons) in Surveying

Faculty of Design and Environment

Abstract

Research Question

Nowadays, the population of Hong Kong is increasing continually. Assuming the areas of the districts do not expand, the density will be overloaded. The facilities could not satisfy the demands of residents in the future. Therefore, the government is planning the Hung Shui Kiu New Development Area to assist the North West New Territories (NWNT) New Town Development.

Objective

The study aims to analyze how the Hung Shui Kiu New Development Area can assist the NWNT New Town Development in respect of population density and infrastructure. It will assess the feasibility of new town development. The study also aims to find out the restrictions in the development process and construction as well as the effective method of NWNT New Town Development.

Methodology

The information about the North West New Territories New Development Area and New Town Development was collected from journals, Outline Zoning Plan, relevant laws, government documents, and news reports. Moreover, the town planners and professors in Surveying will be interviewed about the future NWNT development. Their comments on the planning and development can be analyzed for the outcomes of this study.

Preliminary Findings

Preliminary analysis showed that the North West New Territories New Town Development would enhance the employment rate of the existing new town development. The newly constructed development area can improve the living environment of the NWNT new towns.

About the Investigator

I am Roy CHENG. My interests are hiking and reading. For this project, Sr Lawrence TSE, my supervisor, gave me useful advice during the planning stage. I hope my interests can be of use in this project. I will survey the town planning when hiking. From specialist academic programs, I have acquired knowledge of research proposals and town planning. I want to become a town planner in the future.

Feasibility of Biosolid Application in Hong Kong Agriculture

Abstract

Research Question

Since Hong Kong produces a huge amount of sewage sludge every day, this increases the loading of landfills which can potentially contaminate the ground-water and water bodies. Studies have proven that treated sludge known as 'biosolid' consists of essential nutrients for plant growth. However, it contains a large amount of heavy metal that may affect plant growth and cause environmental hazards. Although the application of biosolid in agriculture is very common worldwide as a waste management strategy, biosolid may not be as functional as other soil amendments. This research focuses on investigating the feasibility of applying biosolid in agriculture.

Objective

The significance of this research is to examine how different proportion of biosolid applied to soil can affect the growth performance, nutrient content, and toxicity performance of three common vegetable species in Hong Kong. The proposed waste management strategy can solve and relieve the problem of sludge disposal and turn sludge into organic fertilizer that can be widely used. A large amount of expenses can be saved on purchasing fertilizer.

Methodology

For the planting experiment, three crop species including carrot (*Daucus carota* subsp. *sativus*), choy-sum (*Brassica chinensis* var. *parachinensis*) and yau mak choy (*Lactuca sativa* var. *longifolia* Lam) were planted from early November to late January. Different concentrations (0%, 5%, 10%, and 15%) of soil amendments such as biosolid, biochar, chicken manure, and compost were used in comparison to find out the difference in plant growth. The growth performance of plants was recorded once a week. Nutrients, the content of heavy metal of the whole plant, and the original soil amendments will be measured.



CHOW Hoi Yan

BA (Hons) in Horticulture and Landscape Management

Faculty of Design and Environment

About the Investigator

I am Alice CHOW. My interest is gardening and I spend most of my time taking care of my flowers and succulent plants. As I am often concerned about environmentally friendly issues, I am motivated to conduct this project which is related to sustainable farming. I hope to transform waste into useful materials that can facilitate plant growth, hence relieving the problem of waste disposal. Dr Livia PAN is my FYP supervisor, who provided me with useful suggestions. I want to be an expert in agriculture or a horticulturist after graduation.

The Connectivity of Diverse Tree Species: Ecological Resilience and Resistance



HO Shu Leung

BA (Hons) in Landscape Architecture

Faculty of Design and Environment

Abstract

Research Question

Due to climate change, the frequency and intensity of climatic disaster keep increasing repeatedly and threatening Hong Kong year by year. A huge number of trees collapsed and a vast scale of places were damaged in urban areas. The aim of this study is mainly to investigate how canopy connectivity affects biodiversity in order to understand their capacity for recovery and resistance.

Objective

The aims of the study were to 1) describe if the difference in biodiversity between degrees of canopy connection of hillside fringes and urban areas is associated with mono and diverse tree species in urban areas; 2) describe the biodiversity variation of connected and disconnected canopies in urban areas; and 3) examine the association of canopy density and their capacity for resilience and resistance.

Methodology

By doing field-trip research in urban areas and comparing the results to that in the hillside fringe, this project studied the numbers of bio-indicators in two types of canopy patterns (i.e., connected and disconnected tree crowns) under two kinds of conditions (mono tree species and diverse tree species) as well as investigating their vulnerability.

Preliminary Findings

Results showed that owing to a better connection with the hillside fringe area where tree crowns were heavily linked, regardless of diverse or mono tree species with an abundance of wildlife, the number of collapsed trees would be smaller. A high degree of canopy connectivity clearly has rich biodiversity and fewer trees collapsed in the place. Optimizing the canopies' connectivity of diverse tree species planted in urban areas could benefit their abilities of resilience and resistance without causing too much damage.

About the Investigator

My name is Sam HO. I am interested in nature and environment as well as their interaction with human beings. Mr Michael THOMAS is my supervisor who gave me lots of advice and inspiration. Landscape Architecture is a challenging subject integrated with different aspects of knowledge and professional skills but it is full of interesting things. It is also useful because it could shape a better community and improve our living quality. Therefore, I want to become a landscape architect as it is a meaningful job.

Reflective Nostalgia: Neon Sign Ideology Transformation in the 21st Century



LAM Wing Kei

BA (Hons) in Landscape Architecture

Faculty of Design and Environment

Abstract

Research Question

This research is to examine the possibility of transforming neon signs in the 21st century. From the view of landscape study, none of the literature or case studies fully captures a way to transform neon signs in the 21st century. We also know little about how landscape architecture can connect neon signs and culture. As a result, further refinement and study are needed to fill this gap.

Objective

The main purpose of the current study is to enhance the public awareness that neon signs are valuable collective memory which could be preserved and transformed in the 21st century. Neon signs are an important source of visual culture and collective memory that makes Hong Kong citizens work closely with landscape to find a new method to upcycle.

Methodology

In order to understand more about the history and suggestions for preserving neon signs, an interviewee was invited. The interviewee was Mr Brian KWOK, the founder of “Hong Kong Neon Sign” and Assistant Professor of the Hong Kong Polytechnic University. Through the phone interview, Brian showed his passion for keeping the neon signs and his disappointment with their decline in number.

Preliminary Findings

Preliminary analysis showed that most of the Hong Kong citizens would love to keep the neon signs as they represent Hong Kong culture. The interviewee, Brian, claimed that conserving the neon sign remnants in situ was the best way to keep them.

About the Investigator

I am Kimber LAM. My interests in Hong Kong art and culture lead me to do this project. Ms Sylvia NG, my supervisor, gave me lots of useful advice and encouragement in the planning stage. As a student who studies Landscape Architecture, I understand that landscaping is a good way to preserve historical elements and contain something valuable. Neon signs, as an essential part of the visual culture in Hong Kong, should be preserved and appreciated.

Connectivity of Cavern Infrastructure

Abstract

Research Question

Previous studies indicated that there was a pressing need for land supply while the countryside was gradually occupied by urban development. Cavern development nowadays is limited to infrastructure. This project proposes to develop a master plan to lead the cavern development into a new era by introducing caverns as a new land supply option.

Objective

The main purpose of the current study is to examine if the cavern development could rehabilitate the ecological system in the urban fringe and restore the human-nature relation. It also aims to project the possibilities of cavern development in order to topple the stereotype of underground space by considering the educational, recreational and conservation concerns.

Methodology

Information about the biodiversity in different geographical conditions and the application of caverns was collected from documents, local and international case studies, demographic analyses and a questionnaire survey of 160 respondents and government officials. Site visits and analyses were also conducted to sort out a potential site.

Preliminary Findings

Preliminary analysis showed that 40% of suitable cavern developing areas in Hong Kong overlapped with country parks. Aberdeen Country Park was chosen to be the site of this project as it is close to the residential area and has low ecological value. The collected data showed that residents were mostly supportive of the cavern development which has educational, recreational and conservation value.



NG Sze Wynne

BA (Hons) in Landscape Architecture

Faculty of Design and Environment

About the Investigator

I am NG Sze Wynne. My interest in latent territories and biodiversity inspires me to do this project. Mr Bosco SO, my supervisor, gave me useful advice in the planning stage. I hope I can expand the potential of cavern development and turn caverns into valuable space for the sake of environmental conservation. I love the natural environment, so I have a great interest in landscape. I want to study a master's degree and become a landscape architect after graduation.

To Explore the Optimal Unit for the Urban Quality of Life in Hong Kong by GIS



TSANG Lok Yee

BA (Hons) in Horticulture and Landscape Management

Faculty of Design and Environment

Abstract

Research Question

In Hong Kong, there are some relevant studies investigating the urban quality of life (QoL) based on objective measurements only. My work would extend to subjective measurements and focus on the optimal unit which is the distance from neighbourhood to the green area with the use of GIS. Below are issues to be examined:

- Quality of life indicators/factors
- Buffer units (200m, 400m and 800m)
- Scales (16 neighbourhoods; Public vs Private Housing; 4 geographical constituencies-Hong Kong Island, Kowloon, New Territories East and New Territories West)

Objective

This research can help people who work on urban planning to have a city plan that can reach high QoL for the neighbourhood. People as urban planners can refer to this study and design a sustainable and high QoL city. It is also a good reference for people doing research on similar topics of finding the optimal unit for QoL in different kinds of neighbourhoods.

Methodology

The study used the methodology from research and analysis of the literature to find the best distance/buffer unit to show the QoL. The data obtained was analyzed by statistical methods and presented in GIS and SPSS. A questionnaire referenced to research done by the University of Hong Kong was applied in this study. The result was decided by combining the questionnaire, GIS and SPSS.

About the Investigator

I am Christy TSANG. I am studying horticulture and landscape management. One of the subjects which I learnt is GIS, which arouses my interest to do this project. My supervisor is Dr Sissi CHEN. She gave me much useful advice in the planning stage and was willing to spend her time on following up my progress. I hope I can study more about GIS and utilize what I have learnt in the field of horticulture and landscape management.

Weedgrown Wartime: Military Heritage in Wong Nai Chung Gap

Abstract

Research Question

Hong Kong has numerous military heritage sites, mostly from the colonial period, and some are from the earlier days and Japanese occupation. Nevertheless, some of these heritages are neglected by the government, thus not receiving proper protection or being hidden from the public. In order to protect the neglected military heritage sites and bring it to the public for conservation, this study aims to establish a general management plan following the design strategy for landscape revitalization. The shortlisted sites are investigated to select the best for formulating a design proposal with various criteria. It was found that Wong Nai Chung Gap get the highest score.

Objective

1. To analyze the area of Wong Nai Chung Gap and discover the existing problems; and
2. To revitalize the military heritage sites through new landscape design and management.

Methodology

This study investigates the existing circumstances at the Wong Nai Chung Gap military site and its surroundings. On-site visits were conducted to obtain the up-to-date data about the circumstances. Moreover, secondary sources were analyzed for the baseline of this study. Those sources included government documents, books, websites, videos, recordings, maps, news articles and images.

Preliminary Findings

The site history, existing heritage, land use, and public access are the site study fields to locate the existing problems as a background of the design concepts. The design concepts are 1) Commemorate in Silence: Heritage Trail; 2) Art of Commemoration: Outdoor Exhibition, and 3) Days of Memorial: Experience.



WONG Ming Yan

BA (Hons) in Landscape Architecture

Faculty of Design and Environment

About the Investigator

I am Alice WONG. I am interested in conservation which is related to the connection between landscapes and humans. Thanks to Mr Michael THOMAS, my supervisor, who assisted me a lot in this project. After graduation, I will utilize my design and become a professional landscape architect.

Effects of Water Stress on the Growth and Nitrogen Fixing Capabilities of Native Legume Plants on Degraded Substrate

Abstract

Research Question

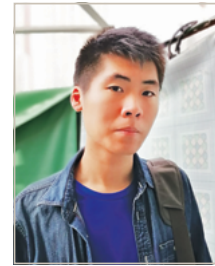
Man-made slopes in Hong Kong are mainly composed of weathered granite, also called decomposed granite (DG), which belongs to loose soil and is not favorable to the survival of plants. As more soil is degraded on a slope, little vegetation can exist. In Hong Kong, the water holding capacity of DG is very low especially in the dry season. The continuous reduction of vegetation will cause severe degradation on slopes and become vicious cycles. According to previous studies, nitrogen-fixating plants have better performance on this degraded substrate because of their unique abilities and symbiotic nitrogen-fixation. However, the symbiotic relationship between the roots of legume plants and bacteria is sensitive to water stress. The survival and the nitrogen-fixing ability of the legume plants may be challenged when they are planted on a degraded slope. Therefore, the capability of legume plants to improve the quality of DG should be further studied.

Objective

There are two main purposes of my study. First, to investigate the nitrogen-fixing ability of native legume plants under a drought condition. Second, to compare the adaptation of native legume and non-legume plants to the degraded substrate on the man-made slopes in Hong Kong.

Methodology

One native legume species, *Archidendron clypearia*, and one native non-legume species, *Syzygium hancei*, were planted on degraded granite. Each species will be put into 2 levels of soil moisture, 10% to 15% and 15% to 20%. The growth performance and nitrogen content of the soils were measured regularly.



WONG Tsz Fung

BA (Hons) in Horticulture and Landscape Management

Faculty of Design and Environment

About the Investigator

I am Jason WONG, an undergraduate student of Horticulture and Landscape Management. I would like to be a professional arborist in the future. The health of urban trees should be under regular supervision by someone who has relevant professional knowledge. I hope to be one of those people. My FYP supervisor is Dr CHAU Ngai Lung.



Faculty of Management and Hospitality

*Department of Business Management
Department of Hospitality Management
Department of Sports and Recreation*

The Role of Social Media in Crisis Management



FUNG Wai Kei

BA (Hons) in Public Relations and Management

Faculty of Management and Hospitality

Abstract

Research Question

With the rise of social media, its influence has undoubtedly changed the way we communicate, and the ways how information spreads and is responded to. Crisis can happen at any time, and companies need to respond immediately to take control. Many companies miss the right time to control a crisis, causing it to become more serious. To help companies prevent any crises from hitting them, this research will evaluate the influence of social media and recommend ways to make use of social media in crisis management.

Objective

The main purpose of this research is to discuss the role of social media in crisis management, especially how a company can adopt social media as a tool to handle crises. It also aims to evaluate how a company can benefit from social media, as well as the challenges it may encounter.

Methodology

This project will use content analysis as a research tool to quantify and analyze social media. The sources of data will come from a review of books, news articles and others. The literature review can provide diverse angles of the characteristics, the pros and cons of social media. The collected data will also be used for recommending social media as an effective tool for crisis management.

About the Investigator

I am Vanessa FUNG. As a student of Public Relations and Management, I am dedicated to learning the new trend in this field, and this inspired me to evaluate the present topic. Dr Liane LEE, my supervisor, has given me practical and useful recommendations for this project. I tried to provide an in-depth discussion about social media to benefit those who are interested in this topic. Meanwhile, I can broaden my knowledge about communication applications.

To Use Characters as Spokespeople Compared to Traditional Spokespeople as a Public Relations Strategy



HO Hiu Fung

BA (Hons) in Public Relations and Management

Faculty of Management and Hospitality

Abstract

Research Questions

Nowadays, people can get information easily from social media, such as the Internet. In order to deliver essential information to the public, using characters as spokespeople is a common strategy in these few years and this method has received some good feedback. This study is to determine whether using characters as spokespeople or traditional human spokespeople is more effective in promoting messages to the public.

Objective

To compare the effectiveness of using characters as spokespeople and traditional spokespeople as a public relations strategy. Can characters as spokespeople increase the effectiveness of delivering information when compared to traditional spokespeople? Or can the traditional way be more easily accepted by the public? I hope I can find out the answer in this project. This project can help PR workers to develop more efficient strategies to target different groups of people.

Methodology

This is a qualitative study. First of all, I will use market analysis and review the news reports about characters as spokespeople and traditional human spokespeople to determine which strategy is better. Moreover, I will set up a questionnaire. Data will be collected by sending out questionnaires to 30 students participating in this study. I will provide 2 types of strategies and ask questions about which strategy they think is easier to remember. Also, they can give a score for each.

About the Investigator

I am King HO and I am studying for a BA (Hons) in Public Relations and Management. My interest is to communicate with others so as to enhance personal relationship and work efficiency. Dr Liane LEE is my supervisor. She gave me advice to improve the quality of my work. Moreover, I hope I can become a public relations officer in the future to satisfy the wants of customers and disseminate information to the public. So I am studying hard and learning different strategies to prepare myself.

The Influence of PR on Mr LEUNG Chun Ying

Abstract

Research Question

What are the reasons behind the negative evaluation of Mr LEUNG Chun Ying? His PR problems or his policy?

Objective

To find out the main reason for the bad image projected by Mr LEUNG Chun Ying when he was the Chief Executive of the HKSAR and to decide if the reason is his poor PR technique or poor policy management.

Methodology

Data will be collected from the Internet and newspapers to review Mr LEUNG's policy and PR status in order to identify the problem. Mr LEUNG implemented many policies like refusal to accept "doubly non-permanent resident pregnant women". The project will analyze the effects of this policy and the opinions from Hong Kong people at that time to compare the PR and policy problems. Did the PR problem or Mr LEUNG's policy affect the results of public opinion surveys? For analysis, the project will collect data from LegCo and government websites to evaluate the effectiveness of Mr LEUNG's policy. It will find data from surveys conducted by local colleges and universities on public opinion about Mr LEUNG's policy and collect data about how people reacted to the policy at that time.

Preliminary Findings

Results from this research can help people and government departments to know about the impact and importance of PR and the first impression. It also provides suggestions for people in senior ranks like senior executives and chiefs to improve their PR images and advises on the relationship between employers and employees, government and people.



IU Pak To

BA (Hons) in Public Relations and Management

Faculty of Management and Hospitality

About the Investigator

I am IU Pak To, a year 4 PRM student. About my interests, I like to get different knowledge and skills in my daily life. My career goal is to become a valuable and important employee in the future. My FYP supervisor is Dr Liane LEE.

Applying Strategies on Social Media Platforms to Improve Customer Brand Loyalty



KWAN Pok Hin

BA (Hons) in Public Relations and Management

Faculty of Management and Hospitality

Abstract

Research Question

Nowadays, social media have great power to influence the consuming values, habits, and behavior of people. Having known the important elements that make social media powerful enough to spread messages and affect people's decisions, companies can make use of those elements and improve the loyalty management of their brands.

Objective

Companies can apply strategies on social media platforms to improve consumer brand loyalty in order to retain and attract customers and enjoy long-term benefits. Results from this research can help to provide recommended practices for professionals who need to manage and improve the customer loyalty of their brands by using social media platforms. They can make and generate better decisions and ideas by having a better understanding of social media and the behavior of users.

Methodology

Before everything gets started, I will do literature review in Google Scholar and journal articles to define key terms for my research. I will use meta-analysis to prepare the main content of my report. I will combine the results of multiple scientific studies to produce a report with the most accurate answer. Working with this method, I hope my report can contain high statistical power and more robust information than using an individual study.

About the Investigator

I am Jacky KWAN. New promotions of different famous brands on social media platforms sometimes get my attention. This inspires me to do this project. Dr Liane LEE, my supervisor, helped me to brainstorm and organize ideas in the planning stage. I did a lot of part-time jobs as a promoter in the past and I am really interested in knowing how a brand builds up its relationship and communicate with target customers specifically. I want to be a public relations officer after graduation and I think doing this project would help me a lot in my career.

Investigating the Working Stress of Journalists and Public Relations Officers

Abstract

Research Question

Certain reports revealed that Hong Kong had the longest working hours in the world. Some workers may commit suicide because they cannot keep a balance between work and life. Journalists and public relations officers need to get ready all the time to report the breaking news or cope with contingencies. Being a journalist or public relations officer may be considered drudgery. Most of the time, journalists and public relations officers are in a state of tension as they need to update the news every day or handle a bundle of work which bears tremendous stress. The working stress is always a key problem that has raised concerns.

Objective

The purpose of the current study is to find out ways that trigger the working stress of journalists and public relations officers and to provide corresponding solutions.

Methodology

Information will be collected by integrating appropriate findings from newspapers, research, viewpoints and cases of journalists and public relations officers. Data will be gathered from year 2015 to 2018. The method of content analysis will be used in the project so as to give a comprehensive and objective description of a particular topic. Through research, the stances of the sources can be categorized as positive and negative. I will summarize and find out the problems as well as providing solutions.

Preliminary Findings

The project can let professionals be aware of the trigger point for the working stress and adopt methods to solve the problem. Thus, the situation can be alleviated. It will also share the findings with other industries for reference.



KWOK Lok Yi

BA (Hons) in Public Relations and Management
Faculty of Management and Hospitality

About the Investigator

I am KWOK Lok Yi. After studying public relations and communication, I find that I am quite interested in this area and I am willing to take it as my future career. Dr Liane LEE, my supervisor, provided me some ideas and visions which inspire me to improve my study and make it more comprehensive. As I want to be a public relations officer or have a job related to this area, the project can let me have a deeper understanding of the stress derived from the job and know the methods to cope with it.

Influence of Social Media Marketing on a Company's Brand Image and Exposure



LAI Tsz In

BA (Hons) in Public Relations and Management

Faculty of Management and Hospitality

Abstract

Research Question

Affected by the penetration of the Internet, many companies start to use social media strategies to communicate with their target customers. The costs are much lower than using traditional media strategies. This project proposes to find out whether social media strategies can result in higher brand exposure to target customers when compared to the traditional media strategies, thus leading to higher brand value.

Objective

To find out the advantages of social media marketing and compare it to traditional media marketing. Results from this research can help companies develop effective social marketing strategies to enhance product sales, and provide the Marketing Department with a better insight into social marketing tactics.

Methodology

My hypotheses are that social media platforms offer additional strategies for companies to communicate with target customers effectively, improve brand images, and increase brand exposure when compared to traditional media. To prove the hypotheses, data will be collected by using admanGo database as a research tool to compare the usage of traditional and social media in 5 companies within 5 years and to analyze the influence of media strategies on sales over time. Besides, article content analysis will be applied to collect data about changes of a brand's image caused by social media and traditional media.

About the Investigator

I am Janice LAI. My interest in the media field inspires me to do this project. Dr Liane LEE, my supervisor, gave me useful advice in the planning stage. I want to enter the media industry after graduation. I hope I can make good use of my insights into media strategies in my future work.

Drivers of the Purchase Intentions of Generation Z in the Fashion Context



YIP Tsz Yu

BA (Hons) in Retail Management

Faculty of Management and Hospitality

Abstract

Research Question

To investigate the drivers of purchase intentions of Generation Z in the fashion context.

Objective

- To find out generation Z customers' purchase intentions;
- To find out ways to increase the profits of companies.

Methodology

Factors affecting the purchase intentions are found mainly from secondary data, including case studies and periodic reports from the HK Retail Management Association.

1st month: To consolidate different secondary data online and from journals

2nd month: Literature review and report writing

3rd to 4th month: Findings and analysis

Preliminary Findings

The literature review was completed. According to the Purchase intentional model of Kuo (2009), service quality and perceived value affected customers' purchase and post-purchase intentions.

Now I am finding previous case studies to validate the result of this study. Several studies (Morgan, 2016; Wood, 2013) have shown that celebrity endorsement will affect purchase intentions. To understand more about Generation Z customers, further analysis will be done on vividness, interactivity, content of brand posts, position of brand posts, valence of comments and control variables (De Vries, Gensler, & Leeflang, 2012).

About the Investigator

Student: Joule YIP

Supervisor: Dr Irene SZETO

I am a final year student of BA (Hons) in Retail Management. Prior to this degree, I obtained a Higher Diploma in Health & Wellness with CGPA 3.01. My career goal is to become a merchandiser in the FMCG industry. At present, I am working in the Standard Chartered Bank as a temporary Human Resources Assistant. This job gives me basic understanding of the operation in the banking industry.

I love to join different activities, such as drama club, voluntary teaching and exchange. Last year, I went to Liverpool for WIL. Through joining activities, I can meet new friends and learn new things. I can speak good Korean, and I have achieved Level 3 of TOPIK. I love travelling around the world to understand different cultures.

The Influence of Travel Review Websites on the Decision-making Process of Hong Kong Outbound Tourists When Choosing Hotels

Abstract



CHAU Chik Ming

BA (Hons) in Hotel Operations Management

Faculty of Management and Hospitality

Research Question

The advancement of Internet technology has changed the way people search for information when making travel decisions from traditional word-of-mouth to electronic word-of-mouth channels like travel review websites (TRWs). Online reviews of TRWs have become a deciding factor in the decision-making process of tourists. This project contributes to the existing knowledge of the influences of TRWs on decision-making at large and examines their influences on Hong Kong outbound tourists in particular. This project provides key contributions to the hotel industry with practical implications for better formulation of marketing strategies and practices in enhancing guest experiences through TRWs.

Objective

This study aims to:

- 1) identify the impact of TRWs on the decision-making process of Hong Kong outbound tourists when choosing hotels; and
- 2) investigate the factors and socio-demographic characteristics that explain the extent of influence of TRWs on the decision-making process of Hong Kong outbound tourists when choosing hotels.

Methodology

Self-administered questionnaires were adopted to collect data from January to February 2019, in the hope of receiving 200 responses from Hong Kong adults who either stayed or planned to stay at hotels outside Hong Kong in the past 12 months. Questions include responses to statements about the influence of TRWs on the respondents and information about their demographic backgrounds. Data will be analyzed by Independent Samples *t* Test and one-way ANOVA to indicate the significant differences of influences among variables.

Preliminary Findings

Preliminary analysis suggested that people with a higher education background considered TRWs a less important source of information when booking hotels outside Hong Kong. TRWs exerted greater influence on travelers who had fewer travel experiences.

About the Investigator

I am Bobby CHAU. As a travel lover, I frequently search for information about different destinations and hotels. This makes me curious about how the information online affects my decisions on choosing hotels. The question is related to my study in Hotel Operations Management as hotels will respond to customers on TRWs. Many thanks to my supervisor, Dr Monica CHOY, who has given me a lot of advice throughout the whole project. I hope this project can give me insights into my work in the future, in particular the tactics a hotel should adopt to target customers with different backgrounds.

Exploratory Analysis of Solo Travel among Generation Y in Hong Kong

Abstract

Research Question

Solo travel becomes a new style of travel and there is an increasing trend of solo travel around the world. Thus, solo travel may be a potentially new market for Hong Kong outbound tourism in the coming years. The younger generation, Generation Y, is keen on travelling and is more willing to take challenges and adventures. Their modes of travel fit in with solo travel. Through investigating the preferences and practices of solo travel among Generation Y in Hong Kong, better solo travel for outbound tourism can be developed for them. As previous studies of solo travel are limited and not specific to Hong Kong, this project is the first to investigate the practices of solo travel specifically among Generation Y in Hong Kong, in order to help the hotel and tourism industry develop a more mature market of solo travel for Hong Kong outbound tourism.

Objective

The current study will investigate the motivations and constraints of Generation Y in solo travel. The study aims to understand the travel patterns of solo travellers so as to provide recommendations to hoteliers to capture the market of solo travellers.

Methodology

Quantitative research was conducted and a questionnaire was used for data collection. A total of 300 local respondents who were Generation Y aged between 18 and 38 were invited. The questions asked were mainly about the motivation and constraints of solo travel, the travel patterns of solo travellers and the planning of solo travel.



HO Ka Lam Karen

BA (Hons) in Hotel
Operations Management
Faculty of Management
and Hospitality

About the Investigator

I am Karen HO. My interests are travelling and experiencing different cultures around the world. On my bucket list, I wish I can go on solo travel. The wish inspires me to carry out research on developing a more mature market for solo travel to encourage people who want to have solo travel like me. Mr Johnny LEUNG, my supervisor, helped me a lot and gave me advice during the whole research. After graduation, I want to develop my career in the hotel industry.

Content Tourism: Japanese Animation and Hong Kong Outbound Travellers



HONG Sin Hang

BA (Hons) in Hotel Operations Management

Faculty of Management and Hospitality

Abstract

Research Question

Content tourism refers to any forms of media-induced tourism. In Japan, anime-induced tourism becomes popular and successful in revitalizing the number of tourists in a destination. Research has empirically documented the link between animation and Japanese domestic tourists. However, little attention has been drawn to the effects of Japanese animation on Hong Kong travellers. Other than understanding how animation motivates Hong Kong travellers to visit Japan, this study also inspires a new idea to promote Hong Kong. To provide a new insight, this project aims to explore how Japanese animation influences Hong Kong tourists' travel intention and travel behavior.

Objective

The project addresses three objectives in particular:

- 1) How does Japanese animation affect Hong Kong travellers' intention to go to Japan?
- 2) How does Japanese animation influence Hong Kong travellers in the selection of tourist attractions?
- 3) How does Japanese animation influence Hong Kong travellers' travel behavior on site?

Methodology

A qualitative method was applied in this study. Primary data were collected by conducting in-depth interviews from December 2018 to February 2019. The 8 interviewees were Hong Kong permanent residents at age 18; they had an interest in Japanese anime and had visited Japan before. The collected data will be analyzed by content analysis.

Preliminary Findings

Preliminary analysis reflected that informants in 20s showed strong interest in visiting the actual locale of the animation to pay tribute to the animator and relive the story in reality. Besides, when informants travelled to Japan, they bought animation-related merchandise, especially the regionally exclusive and limited editions. Until now, most of the informants claimed that Japanese animation was the main attraction for them to travel to Japan.

About the Investigator

I am Jadis HONG. I love Japanese culture, especially Japanese animation. Recently, I have travelled to Japan. I found that some places there used animation for destination marketing. This inspired me to do the FYP. Dr Monica CHOY, my supervisor, provided useful advice and suggestions for this project. As a student studying Hospitality, this project enables me to understand the new pull factor that attracts people to travel and provides a new insight into destination marketing.

Effects of Hotel Service Quality on Customer Retention in Vietnam by Employing SERVQUAL: Hong Kong Outbound Travellers' Perspectives

Abstract

Research Question

The tourism industry is important to modern economic development, which keeps contributing to the gross domestic product (GDP). It is found that Hong Kong people are more willing to travel to the emerging markets. Vietnam has now become one of the fastest growing travel destinations in Asia. With their high spending power, Hong Kong people were the target tourists of Vietnam in these few years.

The following research questions will be addressed:

1. What are the expectations of Hong Kong outbound travellers towards the quality of hotel services in Vietnam?
2. What are Hong Kong outbound travellers' perceptions of the hotel services during their latest stays in Vietnam?
3. How will Hong Kong outbound travellers prioritize the importance of SERVQUAL's five dimensions when selecting hotels in Vietnam?
4. What are the overall satisfaction rate of Hong Kong outbound travellers as well as their intention to revisit and refer after the latest stay in Vietnam?

Objective

The aims of this research are 1) to assess Hong Kong outbound travellers' expectations and perceptions of the service quality of Vietnam hotels by employing the SERVQUAL model; and 2) to investigate how the quality of hotel services affects customer satisfaction and their loyalty.

Methodology

A quantitative research method was applied. 200 valid questionnaires were collected from January to February 2019 by self-administered questionnaires distributed online and at the Hong Kong International Airport. Hong Kong residents who were at age 18 or above and had stayed in Vietnam hotels were recruited. The collected data will be analyzed by SPSS Version 24.0.



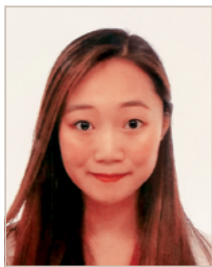
KWAN Ho Yi

BA (Hons) in Hotel
Operations Management
Faculty of Management
and Hospitality

About the Investigator

I am Angela KWAN. My travel experiences and profession in hotel operations management initiate me to conduct this research. Dr Monica CHOY, my supervisor, gave me constructive and excellent advice from the beginning of the project until now. I hope I can contribute to the tourism and hospitality industry by reporting some new findings, so as to support the future development of hotels in Hong Kong and Vietnam. I want to work in the Hotel Marketing Department after graduation since I think effective marketing can help engage customers.

An Exploratory Study of the Practicability of “Brain Food” in Hong Kong



MOK Tsz Huen Louise

BA (Hons) in Culinary Arts and Management

Faculty of Management and Hospitality

Abstract

Research Question

Enormous stress, serious mood disorders and excessive added sugar consumption are observed in Hong Kong. While the literature has proven that the interrelationship among these three factors form a vicious cycle of mood disorders, studies have verified that brain health is one of the key factors that is related to this relationship. The “brain food” concept that promotes utilizing food to improve brain health is beneficial to the regulation of physical, cognitive and mental health of an individual. In this study, “brain food” is suggested as a solution to relieve mood disorders of Hong Kong people.

Objective

- To examine the importance between food and mental health of the public;
- To investigate the practicability of “brain food” in the operation of Hong Kong culinary industry; and
- To suggest a “brain food” menu for industrial modification.

Methodology

Qualitative semi-structured interviews will be arranged for four restaurant owners who are providing food with high or less/no added sugar content. The findings will reflect the attitude of the industry towards the practicability of “brain food” in Hong Kong. To further illustrate the idea of “brain food”, a menu will be designed for the industry to make reference.

Preliminary Findings

An example from Australia:

‘SMILE’, a controlled dietary intervention for trial treatment of depression, has targeted people with moderate to severe depression. The studied group, assisted with the Mediterranean diet that incorporates the “brain food” idea, has shown a significant reduction in depressive symptoms.

About the Investigator

I am Louise MOK and I am passionate about the world of culinary arts. Apart from food production, I would like to further investigate the relationship between food and human health. For my future career, I am determined to pursue jobs that are related to the investigation of healthy food, recipe development and production. I would like to thank my FYP supervisor, Ms Jennifer LO, for her professional guidance.

Women in Kitchen: Barriers Faced by Female Chefs in Hong Kong



TANG Yee Pik

BA (Hons) in Culinary Arts and Management

Faculty of Management and Hospitality

Abstract

Research Question

There is a paucity of information about the phenomenon of imbalance of gender when cooking is considered as a career in Hong Kong. Such phenomenon could be related to the tradition and culture, difference of physical ability between men and women and barriers like ‘family’ which women may consider. This research sets out to investigate the reasons behind the low input of female chefs by interviewing those famous ones about their own experiences.

Objective

It is expected to understand the relationship between the level of gender stereotype and the willingness of women to become chefs in Hong Kong, and how it affects the proportion of women in kitchen. The study will fill the gap of knowledge and benefit the industry by enlarging the possible input of labor under the present shortage. Moreover, we could gain more information on female management style in kitchen.

Methodology

Data were collected through conducting interviews with at least 4 women chefs in Hong Kong. They were selected by a set of criteria including experience in foreign and local kitchens, culinary-education background and so on. They were asked questions regarding their backgrounds, difficulties encountered relating to gender issues, as well as facilitators they found as a helping hand.

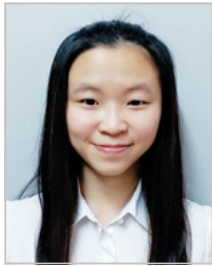
Preliminary Findings

According to the literature review, female chefs usually face criticism about their physical abilities to handle heavy workload in the male-dominated kitchen. Work-life balance is another main problem for them, especially for mothers because they cannot focus on achieving their career goals with children to carry. Media influences and food preferences of women are also potential external factors affecting women chefs.

About the Investigator

I am Gigi TANG and I enjoy cooking at home, at school or at work. It is often heard that women should be doing pastry instead of the hot kitchen, or only people who fail at school would be cooks. With strong disagreement, I hope to get rid of the stereotype by education and research is the first step. With support from my supervisor, Dr Watson BALDWIN, I believe I can be closer to my goal.

The Attitude of Inbound Travellers towards Green Hotels in Hong Kong



WONG Lok Yan Emily

BA (Hons) in Hotel Operations Management

Faculty of Management and Hospitality

Abstract

Research Question

Nowadays, tourists' attitude towards eco-friendly hotels is one of the factors influencing the development of green hotels in Hong Kong. This project will contribute to the existing knowledge about green hotel management at large, specifically in Hong Kong, by examining green tourists' characteristics and their expectations of green hotels. The key contribution of this work would be the practical implications it provides to the hotel industry to better formulate environmentally friendly strategies and practices in order to gain a competitive edge over others and improve guests' experiences.

Objective

The aims of the present study are to determine 1) what features do inbound travellers expect in green hotels; 2) how much extra cost are travellers willing to pay to stay in a green hotel in Hong Kong; and 3) the demographic characteristics of incoming travellers who choose green hotels in Hong Kong.

Methodology

Data will be collected by self-administered questionnaires and Google online surveys. 200 inbound visitors, aged 18 or above, from different countries will be invited to participate in this study. They will be asked questions including their expectations towards green hotel practices and travellers' demographic profiles. The collected data will be analyzed by the Statistical Package for the Social Sciences (SPSS).

Preliminary Findings

Preliminary analysis showed that travellers were willing to stay at green hotels with environment-oriented attributes and hotels with green certification. Price is also an important factor that influences travellers when choosing green hotels. Middle-aged females with similar educational backgrounds (i.e., high school graduates) and people with high income levels are most concerned about the environment and willing to pay more for green hotels.

About the Investigator

I am Emily WONG. Environmentally friendly practices is a much discussed topic in the tourism industry. As a travel lover who is concerned about protecting the environment, I want to find out how the tourism industry can educate tourists to travel in a more eco-friendly way. Dr Monica CHOY, my supervisor, gave me lots of useful advice in the planning stage. I hope this research can facilitate future hotel development in Hong Kong, particularly because I want to work in the hotel industry after I graduate.

Influences of Hotel Loyalty Program on the Buying Decisions of Hong Kong Outbound Travellers

Abstract

Research Question

Hotel buying decisions of travellers could be influenced by many factors. Loyalty programs are launched to attract new customers and retain the existing ones. However, research that empirically documented the link between the loyalty program and the buying decisions of Hong Kong outbound travellers in hotels is scant. Understanding what factors drive the buying decisions of Hong Kong people in choosing overseas hotels represents an important knowledge gap. This study provides an insight into the key factors to help hoteliers get the right track to succeed in their loyalty programs and to win the customers' hearts.

Objective

1. What are the factors that would affect Hong Kong travellers when they are going to choose hotels?
2. How do the loyalty programs affect Hong Kong travellers' preference for a hotel among other factors?
3. Which criterion in the loyalty program carries the most influential effect on Hong Kong travellers' decisions of booking a hotel?

Methodology

A quantitative method is adopted. Primary data were collected by a self-administered survey after obtaining approval from ethics application. Participants were selected from all permanent Hong Kong residents at age 18 or above based on a self-administered non-probability sampling method. 200 anticipated questionnaires were collected via Google Forms. The collected data will be analyzed by t-test and ANOVA.

Preliminary Findings

Preliminary findings showed that Hong Kong outbound travellers were willing to choose hotels by prices, convenient locations and recommendations from others. Incentives from hotel are also critical for travellers to make a decision on hotels. This study shows that travellers join the hotel loyalty programs out of tangible rewards rather than intangible rewards. The rewards and promotions offered by the hotel loyalty programs are the most influential elements affecting the choices of hotels among Hong Kong people.

About the Investigator

I am Rachel WONG and I love travelling to different countries. Since travelling is my hobby, I enjoy doing this project under the supervision of my FYP supervisor, Dr Monica CHOY. Hoteliers over the world are using the loyalty programs more often than before to strengthen the relationship with customers. Being a travel lover and a student of Hotel Management, doing this project helps me understand more about what factors affect Hong Kong outbound travellers to choose a hotel and the importance of the loyalty program in their decision making.



WONG Sze Hang Rachel

BA (Hons) in Hotel Operations Management

Faculty of Management and Hospitality

Factors Affecting the Selection of Banquet Venues of Hong Kong People



WONG Sze Wai

BA (Hons) in Hotel Operations Management

Faculty of Management and Hospitality

Abstract

Research Question

Banquet is a way commonly used to celebrate the remarkable and important events in one's life. The number of banquets held in hotels shows an increasing trend. Venue selection is one of the most important parts in holding an event. The purpose of this qualitative research study is to understand the factors affecting the selection of banquet venues of Hong Kong people. Understanding the selection criteria could help the hotel banquet managers or event planners provide better venues or recommendations that can meet customers' need. More importantly, it would help increase the revenue of a hotel and the profitability of the industry.

Objective

The aims of the research are to understand 1) the factors which prompt Hong Kong people to choose hotels for their banquets; 2) the factors affecting Hong Kong people to choose venues with different features; 3) which factor is the most important to affect Hong Kong people to choose hotels as venues for banquets.

Methodology

A qualitative method would be adopted for this study. The research targets to interview respondents who have held or will hold a banquet in hotels for different purposes. The non-probability sampling semi-structured interviews proposed questions about the selection criteria of banquet venues based on personal experiences. The content analysis would be used to analyze the data from interviews. The interviewees have different purposes in holding banquets in hotels. The interviews can be expected to generate data about people's perceptions of holding banquets in hotels for different purposes.

About the Investigator

I am Sophia WONG. The internship experience in a hotel event management team inspires me to do research on this project. Dr Monica CHOY, my supervisor, gave me useful advice and support in the planning stage. I would like to be an event planner in a hotel after graduation. Therefore, I hope this research can contribute to the hotel industry, especially in event management.

Media Behaviour and Social Interactions of Hong Kong Millennials Regarding Travel

Abstract

Research Question

This paper studies the travel media behaviour of Hong Kong millennials, concerning their travel inspirations and the ways of acquiring travel information. Although numerous previous studies have discussed millennials' travel motivations and behaviour, no research has been done to discern the differences between the age subgroups within the Hong Kong millennial segment. Millennial is one of the most potentially influential generation groups both in terms of size and purchase power, so it is critical to have better knowledge about this segment and its subgroups.

Objective

The goal of this research is to understand the possible differences between the two subgroups within the millennials. The members in group 1 are younger and are teenagers aged between 15 and 19; the members in group 2 are older and are young adults aged between 20 and 24. The purpose of this study is to contribute to the knowledge of the travel media behaviour of Hong Kong millennials since they are starting or have recently entered the independent traveller market and can be vital to help comprehend and improve the planning of tourism.

Methodology

This is a quantitative study to test the hypothesis that there are intergenerational differences in the travel inspirations and the ways of acquiring travel information between the two subgroups of millennials. The study adopted a questionnaire survey and interviewed 200 respondents according to the aforesaid age classifications in the selected localities.

Preliminary Findings

The expected result is that there is a significant difference between the two subgroups. The result will help understand the travel media behaviour of Hong Kong millennials, and examine/define the potential differences in this generation.



YEE Ka Ki Yulia

BA (Hons) in Hotel Operations Management

Faculty of Management and Hospitality

About the Investigator

I am Yulia YEE. My interest in the travel media behaviour of Hong Kong millennials has inspired me to do this project. Dr Paul LEUNG, my supervisor, gave me useful advice in the planning stage. I hope to find out the travel media behaviour of Hong Kong millennials who are amongst the most potentially powerful generation groups both in terms of size and purchase power as previously discussed. I want to build a career in the hospitality and tourism industry after graduation.

Customer Loyalty of Local Tourists and the Service Quality of Hong Kong Disneyland Resort and Hong Kong Ocean Park



BUT Chi Ting

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

In recent years, competition is stronger than ever in theme park industry because more theme parks compete in Asia. This project will find out local tourists' loyalty to Ocean Park and Hong Kong Disneyland, and the correlation between service quality and customer loyalty.

Objective

The main purpose of the study is to compare the customer loyalty and service quality between Ocean Park and Hong Kong Disneyland. After data collection and data analysis, it will provide some suggestions and review to Ocean Park and Disneyland to address their inadequacies.

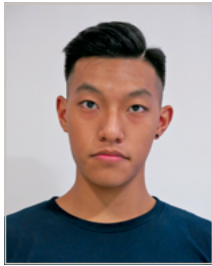
Methodology

Data will be collected by distributing questionnaires to over 150 voluntary participants from January to April. After data collection, this project will use IBM SPSS Program to analyze data whereas the Mann-Whitney U test and Spearman's correlation will be adopted to measure customer loyalty and service quality.

About the Investigator

I am Ken BUT. My interests in recreation and entertainment facilities inspire me to do this project. Dr Peggy CHOI, my supervisor, gave me useful advice in different meetings, so I made a huge improvement in this project. I hope this project can analyze the views of Hong Kong people and some important issues or factors in the theme park industry. After graduation, I would like to dedicate to work in the recreation and entertainment industry.

The Effectiveness of Social Media Marketing: The Impact of Event Official Facebook Page Update on the 2019 Standard Chartered Hong Kong Marathon



CHAN Kwok Fung

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

Research about social media marketing in Hong Kong is little. This study can help people understand the effectiveness of social media marketing in Hong Kong. Advertising theory is applied in the theoretical framework to measure the effectiveness of “Facebook” as a social media marketing strategy.

Objective

This study examines the effectiveness of social media marketing on the participants of the 2019 Standard Chartered Hong Kong Marathon. It will also find out the impacts of event official Facebook page update to assist the development of the “M” Mark event and the sports industry in Hong Kong.

Methodology

Data in this study were collected by sending out questionnaires to 300 respondents who were participants of the 2019 Standard Chartered Hong Kong Marathon and at age 18 or above. The participants completed a questionnaire which was divided into three sections: (1) screening, (2) demographic profile, and (3) effectiveness of Facebook. It took them around 10-15 minutes to finish the questionnaire about the effectiveness of social media marketing. There are four parts in the last section, effectiveness of Facebook, which is based on advertising theory. The four parts are impacts on the awareness, interest, intention, and behavior of the participants.

About the Investigator

My interests in sports and sports events inspire me to do this project. Mr Jason MAK, my supervisor, gave me useful advice in the planning stage. I hope I can learn more about the development of sports events and contribute to the development of Hong Kong sports events. I have worked for some sports events since I was in Year 1 of Higher Diploma, so I have a lot of experience to share about the sports events in Hong Kong. I want to have a good career in event planning.

Impact of Facebook on the Branding of the Standard Chartered Hong Kong Marathon

Abstract

Research Question

Most of the research focuses on the online marketing impact on personal development and commercial business. There is little research about the online media impact on events, especially the relationship between social media and sports events.

Objective

This research is going to fill the gap of previous research. The purpose of this research is to reveal the relationship between the impact of Facebook and the Standard Chartered Hong Kong Marathon. It also aims to:

- Find out if the impact is positive or negative or there is no relationship between Facebook and the Standard Chartered Hong Kong Marathon; and
- Provide data to sports event organizations to enhance the quality of their event branding.

Methodology

Data will be collected by questionnaires. The Statistical Package for the Social Sciences (SPSS) will be used in data analysis.



CHAN Man Chung

BSocSc (Hons) in
Sports and Recreation
Management

Faculty of Management
and Hospitality

About the Investigator

I love playing sports and games with my friends on holiday. This can help me release pressure and let me feel ecstatic. I can also meet some new friends through games and sports. In the future, I hope I can find a job to apply the knowledge I learnt from THEi. My FYP supervisor is Mr Jason MAK. My ultimate goal is to have my own business.

The Effect of Proprioceptive Training on the Agility Performance of the Hong Kong National Cricket Team Players



CHAN Nga Yee

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

Cricket has emerged to be one of the most highly followed sports in the world. Although cricket is not a contact sport, injuries occur frequently. Approximately 76% of injuries are sustained on-field (acute injury) potentially due to poor agility or reaction, with lower limb injuries (49.8%) being the most common.

Objective

This study intends to evaluate the effect of proprioceptive training on the agility performance of the Hong Kong national cricket team (men's first team). Proprioception has a significant role in athletes' performance (Gidu and Oltean, 2016). It is acknowledged that the components of proprioception and agility are comparable; therefore, it is anticipated that the proprioceptive training may have a positive effect on agility performance. Additionally, improved agility performance is expected to reduce injury risk, injury recurrence, and lost revenue incurred by medical expenses as a result of injury.

Methodology

Eleven subjects were recruited from the Hong Kong national cricket team. Following medical screening, all subjects were required to perform a series of pre-tests prior to completing a 6-week intervention program which will conclude with post-testing procedures (identical to pre-tests). Pre-tests and post-tests include the Y-balance test, the 505 agility test, and the Illinois agility test. In the intervention programme, the main exercise components are based on balance and coordination, e.g., 'Single leg stands on a balance pad', 'Double legs bridge on a Swiss ball', etc. It is anticipated that the intervention programme components may progress (e.g., sets, repetitions, and duration) from week 5 in response to the adaptation and improvement in the subjects' performances.

Preliminary Findings

Following the screening process, eleven participants completed the agility pre-tests in preparation for the commencement of the intervention program. During the performance of agility pre-tests, participants were observed to have delayed reaction or decreased ability whilst negotiating certain elements of the tests, e.g., cutting and turning in the run. This may indicate a deficit in proprioceptive ability, thus resulting in underdeveloped agility performance.

About the Investigator

I am currently studying in the SRM program (Sports Therapy) and conducting FYP research under the supervision of Mr Anthony BOSSON (Specialism Leader). My fields of interest include sports injury prevention and injury rehabilitation. My current internship duties involve clinical practice like assisting lead physiotherapists to conduct patient rehabilitation, preparing injury prevention programmes, and providing emergency on-field first-aid. My career goal is to secure a clinical assistant position or a sports therapist position in the vocational industry.

Personal and Environmental Factors of Sports Participation in Hong Kong



CHAN Tsz Kwan

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

Nowadays, teenagers and adults have heavy workloads or there may be other reasons which affect their sports participation level. The Hong Kong government has been promoting the “Sport for All” policy for many years. The government encourages people to participate in different physical activities and sports events; it also builds sports centers in different places for the convenience of citizens. According to research on people’s exercise habits in society, they generally have a low sports participation level. In this research, we want to understand the main factors affecting people to do exercise.

Objective

This report shows how personal and environmental factors lead to the low level of sports participation among adults and teenagers. It will also find out the main barriers which hinder people from doing exercise. Based on numerous studies of people’s exercise habits, adults and teenagers simply do not have enough time to do exercise.

Methodology

The project will distribute 280-300 questionnaires to enquire students about the personal and environmental factors that affect their frequency of playing sports. We want to obtain the final results to understand the real situation in Hong Kong and analyze reasons for the low level of sports participation.

About the Investigator

I am Jamil CHAN. I love playing basketball and this hobby inspires me to do research on this topic. Dr Peggy CHOI is my supervisor. She gave me a lot of help and suggestions to complete the planning stage. About my future goal, I want to become an event planner to design more interesting events for people. I want to use my knowledge to share more fun with the public.

Pronated Foot



CHENG Chun Hin

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

Pronated foot is more prevalent in Asia as Asians suffer musculo-skeletal injuries easily. Pronated foot will provide more mechanical loads to lower limb structures, such as knee joints and hip joints. It will also affect the lower limb alignment. When the affected person lands with a single leg, he/she will have a higher chance of getting a valgus knee. Since women are more likely to have valgus knees than men, so women are recruited as subjects in my study.

Low-dye taping has a few functions; it can limit foot pronation and treat foot disorders. The low-dye taping technique can provide short-term treatment for the foot arch. The sequence of low-dye taping is to tape near the subtalar joint, a neutral position, thus resulting in a reduction of pain. The low-dye taping technique can reduce pronation; in other words, it can improve the lower limb structure and helps the treatment receivers recover from injuries. When subjects land on the force platform, their hips will absorb great force. The knee joints also absorb great force when subjects are doing knee extension.

We will use two Force Platforms (OPT-400600HF-2000 force platform) to collect the landing force and analyze the data with the AMTI Optima Force Platform System. 3D-Motion data will be captured and analyzed by two motion cameras, i.e., Vicon MX T40s Camera (including Strobe Lights) and Vicon Bonita 720C. Muscle strength data will be collected by electromyography (EMG) electrodes. We use the drop-landing test in this experiment.

Pronated Foot

CHOY Festus

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

Pronated foot is one of the most important factors that causes musculoskeletal injuries of the lower extremities. Pronated foot is defined as the navicular drop for more than 10 mm. Excessive mechanical loads are applied to the lower extremities. It also affects the vertical ground reaction forces and the rate of loading. These two affected areas are the most common causes of injuries among female volleyball players. This research aims to improve the kinetics and kinematics of pronated foot during landing with the application of low-dye taping. The low-dye taping technique can limit the hyperpronation of foot and decrease the medial arch pressure. Some previous studies investigated the potential problems of pronated foot, especially among women's volleyball players. Pronated foot affects not only the ankle posture but also the whole leg alignment and the activation of hip muscles.

Methodology

The timing and amount of the gluteal muscles used were collected by an electromyography (EMG). Data of the landing movements of the lower extremities were tracked by the Vicon system. The ground contact reaction force was collected by a force platform. 10 subjects were recruited from women's recreational volleyball players by using voluntary and snowball sampling methods. All subjects had pronated foot with the navicular drop of more than 10 mm. For the test, subjects were required to land 3 times from two boxes of different heights and were tested with tape and non-tape. The higher box is for the subjects to land with both legs whereas the lower box is for landing with a single leg (dominant leg). Paired samples *t*-tests (pre-tape vs. post-tape) were used to estimate the effectiveness of low-dye taping.

Impact of Official Web Page and Facebook Page on the Motivation to Join the Standard Chartered Hong Kong Marathon



CHU Ka Tung

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

After the beginning of Web 2.0, social media has become one of the most popular means to affect the public's motivation, does it mean that web pages become outdated in promotion? As more and more businesses like to use social media such as Facebook, will web pages become useless when Facebook can do a better job to invite more members of the public to join?

Objective

This project will figure out the different effects between a web page and a Facebook page.

Methodology

This project will be a quantitative study and it will use questionnaires for data collection. We have chosen two non-random sampling methods, which are purposive and snowball sampling. We hope we can collect around 100-150 completed questionnaires for this study. The target participants are 100 to 150 individuals who are Facebook users aged over 18. We have used 5-point Likert scales to design the questionnaire in which respondents are requested to fill in numbers ranged from 1 to 5 to indicate "strongly disagree", "disagree", "neither agree nor disagree", "agree", and "strongly agree". We will have a pilot test after we have designed the questionnaire.

Preliminary Findings

As Hong Kong's M Mark events are still new, there are not many journals about these events for case studies. Some journals showed that some event organizers around the world preferred to use Facebook to promote their events.

About the Investigator

I am Tony CHU. My interest in the connection between sports and technology inspires me to do this project. Mr Jason MAK, my FYP supervisor, gave me the best support and helped me improve this project. I hope I can do more for this project as it is easier said than done. The project gives me a chance to use what I have learnt. I hope it can help me face difficulties in the real working place.

The Relationship Between 6RM Bench Press Strength Test and Maximum Bowling and Throwing Velocity of International Cricket Fast Bowlers



FOK Nick

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

Studies showed that bowling at a high speed was a major factor in fast bowling and was important for success. Maximal overhead throwing is crucial to the performance of fielders. Various studies have stated that upper body strength is related to bowling and throwing at maximum velocity. Instructors with fitness and strength and conditioning backgrounds use repetition maximum bench press (RM) tests as a benchmark to determine upper body strength.

The existing literature suggested that the maximal speeds of cricket bowling and overhead throwing were related to the maximum effort of a bench press. However, studies on using the 6RM test, a test which is proven to be safer, are limited.

Objective

To find the relationships among 6-repetition maximum bench press, cricket bowling and overhead throwing velocity.

Methodology

The study will collect data from cricket bowling and overhead throwing tests to find the relationship between them and a 6RM bench press. The target population of this study will be full-time elite international cricket players who are currently representing Hong Kong. Prior to the tests, participants will be briefed and undergo a specialised warm-up. The three tests will be conducted in the same month. Two of the tests will be conducted on-field at a turf pitch, and one at the fitness center of THEi Chai Wan campus. To measure the speed of the ball thrown, a velocity gun will be used. The IBM SPSS software will be used for data analysis.

About the Investigator

My name is Nick FOK. My interest in fitness, high performance coaching and team sports motivated me to do this project. Mr Anthony WELDON, my supervisor, has given me plenty of advice and practical knowledge in all stages. In future, I hope to work as a personal trainer or a strength and conditioning coach for the general public or elite athletes. This has been my goal ever since I entered THEi.

The Effect of Low-dye Taping on Both the Amount and Timing of Gluteal Muscle Activation during Double Leg and Single Leg Landing Tasks



HEUNG Mei Ling

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

Previous research only studied low-dye taping of plantar fasciitis, plantar heel pain and muscle activities during single leg standing, treadmill running and so on. This study will combine low-dye taping, surface electromyography, force platform and three-dimensional motion capture to investigate how activation of the gluteal muscles affects the dynamic lower limb alignment during the landing movement with and without low-dye taping.

Objective

The purpose of this study is to find out how gluteal muscle activation affects the lower limb alignment during the landing movement with low-dye taping and evaluate its effectiveness of injury prevention.

Methodology

Ten female recreational volleyball players voluntarily participated in this study. Data were collected by Avicon three-dimensional motion analyses camera and surface electromyography (sEMG) to record the gluteus maximus and gluteus medius activities as well as two AMTI force platforms.

Three trials of single leg drop landing onto the force platform will be performed from a height of 30 cm. Double leg drop landing will be done from heights of 30 cm and 45 cm onto the force platform. The mean of the trials will be used for data analysis. The single leg drop landing will be performed by a dominant leg. Subjects will perform with and without low-dye taping; the order of their performance will be assigned randomly.

About the Investigator

I am Melon HEUNG. Mr Indy HO is my supervisor. He guided me and gave me a lot of ideas during the planning stage of this project. I hope this study can help athletes with flat feet and reduce the injury rate during training and competitions. After graduation, I want to be a sport therapist who helps athletes to prevent injuries, conduct rehabilitation, enhance athletes' performance and so on. This study really helps me a lot in my future career. I hope I can explore more in this area in the future.

The Acute Effect of Applying Novelty Myofascial Release Method on the Contractile Properties of Gastrocnemius, Ankle Dorsiflexion Range of Motion and Reactive Strength Index

Abstract

Research Question

Gastrocnemius is an important muscle for walking, running, jumping and doing sport. Cupping therapy has been reported with an increase in muscle flexibility and is theorized to play a role in muscle development, but its effect on the contractile properties of gastrocnemius and reactive strength index is still unclear.

Objective

To determine the effect of applying fascia bell cupping method on the contractile properties of gastrocnemius; and to measure ankle dorsiflexion range of motion (ROM) and reactive strength index (RSI).

Methodology

26 healthy adults (aged 18-35) who are free from neuromuscular disorders or injuries of the lower limb will be recruited in this repeated measure experiment. Each participant has to take 3 sessions with the control, fascia bell and static stretch conditions in 3 different weeks. The sessions include a pre-test and a post-test; each test will be performed in the sequence of tensiomyography (TMG), ankle dorsiflexion range of motion (ROM) and reactive strength index (RSI). The sequence of the pre-test and post-test is TMG, ROM and RSI while the order of the 3 testing conditions will be allocated with a counterbalance method.

Measures of the Main Outcomes:

Descriptive statistics will be used to summarize all demographic characteristics and outcomes (Mean \pm SD). The reliability of the TMG, ROM and RSI measurements will be examined using the intraclass correlation coefficient (ICC). One-way ANOVA with repeated measures with Bonferroni correction ($p \leq .05/3$) will be used to observe any significant difference ($p \leq .05$) among fascia bell, static stretching and control conditions on dependent variables including contractile properties, ROM and RSI. The sphericity will also be checked by the Mauchly's test ($p > .05$). In addition, a 95% confidence interval will be used to explain the statistical significance of the p value. Furthermore, the standardized effect of pairwise comparison will be checked by Cohen's d value and magnitude based inference.

About the Investigator

We are HO Chin Wang, HEUNG Ho Ting and MAK Shing Hin Ryan, year 4 students of Sports and Recreation Management program. Our professionalism inspires us to conduct research on the issue. Mr Indy HO, our research supervisor, has given us detailed instructions and guidance in research planning. We are interested in therapeutic practice and hope to provide more research-based options to clinical practice.



HO Chin Wang
HEUNG Ho Ting
MAK Shing Hin Ryan

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Effect of Proprioceptive Training on the Agility Performance of Hong Kong National Cricket Players

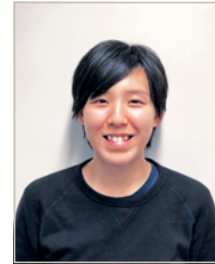
Abstract

Research Question

Proprioceptive training is sensory motor training which requires one to control his body to align with the center of gravity, such as one-leg static and dynamic balance drills. The training is recognized as a possible way to develop one's agility and prevent injuries. Research on the effects of proprioceptive training on the agility performance of cricket players is limited.

Methodology

The purpose of this study is to determine whether proprioceptive training will affect the performance time of a sportsman's agility. 11 male subjects from the Hong Kong national cricket team ($n = 11$) volunteered for the study. Subjects were divided into the control and experimental groups. They were taken for two agility (the 5-0-5 test and Illinois test) tests and one balance (the Y Balance) test to record the pre- and post-proprioceptive training interventions. If $p > .05$, the paired samples t -test will be used for analyzing the difference between the pre- and post-tests. If $p < .05$, it would be considered that there is a significant difference. The Wilcoxon signed-rank test will be used for non-normally distributed data shown in the Shapiro-Wilk test ($p > .05$). The project is ongoing. A total of 11 cricket players completed the consent forms, screening, and pre-tests. From initial observation of the pre-tests, most of the cricket players had inferior results in balance and agility tests. The next step of this study will be a 6-week proprioceptive training program with approximately 11 to 12 sessions and 8 exercises.



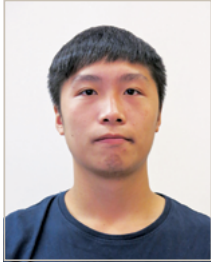
IP So Wa

BSocSc (Hons) in
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and Hospitality

About the Investigator

I am a sports lover who is eager to help athletes to achieve greater performance. Therefore, I am interested in finding out methods to enhance sports performance as well as reduce injuries. This study intrigues me a lot as its results can act as references not only for athletes, but also for coaches. I would like to participate in this study. Mr Anthony BOSSON is my supervisor.

Participation in Outdoor Sports Programs by College Students in Hong Kong



LAW Chi Yin

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

What motivations and barriers will affect college students to participate in outdoor sports programs? When I collect the data, I will know what factors affect their participation. Afterwards, I can formulate a solution to the problem and attract more people to join outdoor sports programs in Hong Kong.

Objective

The objective of the study is to find out the motivations and barriers affecting college students to join outdoor sports programs in Hong Kong. Moreover, it can provide reference to help the Hong Kong government effectively attract more members of the public to participate in outdoor sports programs and promote the related benefits.

Methodology

A survey will be conducted to investigate the motivations and barriers that affect college students to join outdoor sports programs. Five participants will join the pilot test to double-check the questionnaire. After that, it will be distributed online for around one to two months. If the target number of returns cannot be reached within the time constraints, questionnaires will be distributed to different college students outside their campuses. Three months will be spent on collecting questionnaires from college students. To analyze the results of the survey, Pearson correlation will be used to find out the relationship among the factors affecting college students to join outdoor sports programs.

About the Investigator

My hobbies include basketball, badminton, table tennis, and football. Basically, I love participating in all kinds of sports and I like holding sports events for the public. My career goal is to organize my own sports events for the public so that I can share the benefits of sports participation with the public. My FYP supervisor is Dr Peggy CHOI.

The Effectiveness of Facebook Page Marketing on the Branding of the Standard Chartered Hong Kong Marathon

Abstract

Research Question

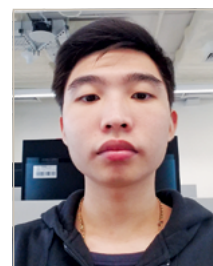
The Standard Chartered Hong Kong Marathon (SCHKM) is one of the most famous mega-events in Hong Kong. In recent years, the SCHKM has employed a lot of marketing tactics on its Facebook page to improve its branding. Therefore, it would be interesting to study whether those tactics are effective in establishing the reputation for the SCHKM, the brand loyalty and the participation rate.

Objective

The main objective of this study is to examine the effectiveness of the Facebook marketing tactics adopted by the SCHKM in its branding. Improvement in the branding will be evaluated on the basis of event reputation, brand loyalty and participation rate. This study can help find out the relationship between online marketing and the branding of Hong Kong mega events.

Methodology

Data will be collected by sending out questionnaires to about 300 students participating in the SCHKM. They will be asked questions in four aspects: Facebook usage, event reputation, brand loyalty and event participation. After the required data have been collected, SPSS software will be used to analyze the linkages among participants' Facebook usage, event reputation, brand loyalty, and event participation rate. If there are high correlation indexes, then the marketing tactics on the SCHKM Facebook page can be considered effective in improving its branding.



LEUNG Kam Hung

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and Hospitality



About the Investigator

I am Ricky LEUNG. My interest in joining Hong Kong sports events inspires me to do this study. Mr Jason MAK, my supervisor, gave me useful advice and kept me away from the wrong path during my study. As I like doing recreational activities, for my future career I have recently obtained some licences such as Kin-Ball coaching. After graduation, I hope I can work in areas related to recreation management such as sports venue management, event management, etc.

The Relationship of Service Quality, Customer Satisfaction, Customer Loyalty and Public Swimming Pool Users in Hong Kong

Abstract

Research Question

In Hong Kong, public swimming pools play a crucial role in helping the Leisure and Cultural Services Department (LCSD) promote physical recreation and sports at all levels because swimming is the second most popular and “most-hope-to-be-learnt” sports (LCSD, 2006). There are two research questions in this study: (1) Are customer satisfaction and customer loyalty positively correlated with the users of public swimming pools in Hong Kong? (2) Are service quality and customer satisfaction also positively correlated with these users?

Objective

The purpose of this research is to evaluate the management of public swimming pools by assessing the service quality, customer satisfaction and customer loyalty with feedback collected from users and to discover the relationship among these factors. The LCSD can use the results as reference to evaluate the service quality, customer satisfaction and customer loyalty of public swimming pools so as to improve their provision of services. This research can also consolidate the information about these three factors for other researchers in the future.

Methodology

Data will be collected by sending out questionnaires to 343 users of public swimming pools. The questionnaire is adapted from a previous study in the sports and recreation industry (Kyle, Theodorakis, Karageorgiou & Lafazani, 2010). It is divided into four parts, including demographic information, customer loyalty, service quality and customer satisfaction. The investigator will visit the selected public swimming pools in the morning and evening for data collection. Data will be collected twice a week and the whole process will last for two months. This study will use the Statistical Package for the Social Sciences (SPSS) to compute and calculate the data.

About the Investigator

I am Kelvin LI. My interest in Sports and Recreation Management inspires me to do this project. Dr Peggy CHOI, my supervisor, gave me useful advice in the planning stage. I hope I can find out the service performance of public swimming pools so that the public can be served better. I like swimming and I always go to public swimming pools in my leisure time, so I have a lot to share about their services. I want to be a sports facility manager after graduation.



Li Ka Chun

BSocSc (Hons) in
Sports and Recreation
Management

Faculty of Management
and Hospitality

The Effect of Proprioceptive Training on the Agility of Hong Kong National First-team Cricket Players



LI Yan Yue

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

Injury prevention strategies are at the forefront of sports performance. As a cricket player, the movement patterns include walking, jogging, running, striding and sprinting (Pyne, Dawson, Portus & Kellett, 2009). The load on the lower limbs is very high, thus players will get injured easily during training and matches. A study reported that on average there were 1.9 cases of injuries per cricket player in both the provincial and national teams (Stretch, 2003). Another research suggested that a good agility training program could reduce the risk of injuries. Injuries happen frequently as athletes lack the capability to protect themselves (Ezni & Mondam, 2015). Proprioceptive training programs may enhance the effectiveness of agility performance, because the proprioceptive components such as balance and coordination are proved to promote agility. The significance of this project is to observe the effect of proprioceptive training on the agility of Hong Kong national cricket players.

Objective

The main purpose of the current project is to start the six weeks proprioceptive training program to improve the balance and coordination of cricket players as well as improve their agility performance.

Methodology

11 cricket players whose ages range from 18 to 26 will be recruited in the experiment. Before starting the proprioception training program, the subjects need to perform a pre-test and a post-test. There are three different drills (Y-balance test, 5-0-5 agility test and Modified Illinois test) in the pre-test and the post-test. After the experiment, the research team will analyze the data with SPSS. We will use paired samples *t*-test or Wilcoxon matched pairs test to compare the means of the two related groups in the pre-test and the post-test.

Preliminary Findings

We finished the screening and pre-test sessions. The six weeks proprioceptive training program began on 11 February 2019.

About the Investigator

I am Yvonne LI, an undergraduate majoring in Sports Therapy. I am motivated to cure sports injuries of athletes because I suffered from different kinds of injuries during my training as a basketball player. My FYP supervisor, Mr Anthony BOSSON, has assigned me the topic "how to prevent injuries in the lower limbs". I think it is a good opportunity to apply my knowledge from reading and my experience from the industry.

The Effect of Low-dye Taping on Both the Amount and Timing of Gluteal Muscle Activation during Double and Single Leg Landing Tasks

Abstract

Research Question

Excessive foot pronation may lead to certain undesirable kinematic changes including the valgus knee in both static weight bearing position and landing tasks. Low-dye Taping (LDT) technique is one of the common methods to relieve pain or discomfort for people with plantar fasciitis or excessive rear-foot pronation. LDT is used to increase the height of medial longitudinal arch to reduce the ankle eversion angle, tibial internal rotation and modify the distribution of plantar pressure to improve ankle functions. A recent journal suggested that people with more pronated feet posture would gain more adduction of the knee. It could easily affect the knee joint alignment and hip joint alignment at the same time. When the alignment of the knee and hip changes, the biomechanics of human landing posture will also be changed, such as the pressure on each of the joint will be changed during landing. Thus, the chance of getting lower extremity injuries will increase.

Objective

The purpose of this research is to find out the amount and timing of activation in the gluteal muscles, and to examine the effectiveness of applying low-dye taping for volleyball players. Previous research only mentioned the benefits of LDT on plantar fasciitis, heel pain, or muscle activation on PL, TA and GM. There is a lack of studies analyzing the relationship between gluteal muscles activation and the double leg or single leg landing task.

Methodology

In this regard, the surface electromyography (EMG), force platform and 3D motion capture will be used to investigate the muscle reaction time, lower limb kinematics and ground reaction force during single leg and double leg landing tasks.

This experiment is a cross-sectional study. The three independent variables are applying low-dye taping, without applying low-dye taping, and the box height, and the dependent variable is the electromyography (EMG) of the gluteal muscles. This experiment can be classified as within subjects repeated measures. Twenty healthy and physically active females aged 18-25 volunteered to participate in this study. Volunteers had not suffered from any lower limb injuries within one year and are not currently suffered from lower extremity injuries that would affect them to finish the single leg and double leg landing tasks. The physical level of the volunteers is proposed to be in sub-elite volleyball player. Each of the volunteer should have at least two-year training and competition experience.



LO Ying Hang

BSocSc (Hons) in
Sports and Recreation
Management

Faculty of Management
and Hospitality

About the Investigator

I am Jason LO, a student of Sports Therapy. My interest in sports encourages me to do this project. Mr Indy HO, my research supervisor, gave me professional advice on the project. This project will change the choice of training exercises for improving the performance and abilities of athletes during training and competitions.

The Relationship between Sports Participation and Happiness among College Students in Hong Kong



LUI Hei In

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

In recent years, society has paid more attention to the mental health of college students because of the lowering age of people who suffer from depression and other negative emotions. Besides, the students do not have enough sports participation because of heavy academic pressure and confusion about their future paths, so they have a low level of happiness. This project proposes to find out the relationship between sports participation and happiness among Hong Kong college students.

Objective

As the issue becomes more serious, this project can contribute to the latest information for the Hong Kong government and help sports development in the future. The main purpose of this study is to investigate the correlation between sports participation and happiness among college students in Hong Kong. Moreover, it aims to find out their current status of sports participation.

Methodology

This is a quantitative study of correlations. The questionnaire will be divided into four sections including the screening questions, the physical activity index (PAI), the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) and personal particulars. All sections are close-ended questions.

350 participants will be invited to complete the questionnaire. Convenience sampling and snowball sampling will be used for selecting the eligible respondents, which should be aged 18 or above and study in the 11 selected universities. The paper-based and online questionnaires were distributed in January and February 2019.

About the Investigator

I am Heiley LUI. My interest in sports development in Hong Kong inspires me to do this project. I hope I can help the Hong Kong government actuate sports development and encourage more people to do sport. Dr Peggy CHOI, my project supervisor, gave me many valuable suggestions and advice during the planning stage. I want to be a sports marketing executive after graduation.

Hong Kong College Students and Their Participation in Outdoor Sports Programs



NGAI Ming Shing

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

This research aims to collect data from “young adults”. The questions about fitness centres are related to people’s expected standard, personal experience, factors affecting their personal preferences such as price and service diversification, as well as the grading of service quality. This research aims to find out the standard of young adults when they are choosing the services of fitness centers.

Objective

The objectives of the study are to look for the elements and relationships of service quality that influence consumer satisfaction. The result of the research will be useful to the sports facility seekers for re-considering and establishing their satisfaction standard of service quality for comparison. The sports and recreation industry would have to consider how to improve service quality by satisfying customers' needs and wants directly. This research would also enhance Hong Kong sports and recreation development.

Methodology

The questionnaires will be sent out on the Internet and the hard copy will be released in the below planned locations: THEi Chai Wan campus fitness center, Physical Fitness & Beauty’s Fitness Center in Lok Fu and the LCSD Fitness Center “Po Kong Village Road Sports Centre”. These two parts of the research are going to be finished as the surveys will be returned between January and March 2019. Around 200 surveys will be collected and analyzed according to the research aims as planned. Data analysis will be done between January and May 2019.

About the Investigator

I am always interested in social-related activities such as sports, gaming and travelling. My career goal is to be an event and activity organizer or an operator involving in public sports activities and facility management. I love to see the satisfaction and happiness of people who enjoy my organized activities. My FYP supervisor is Dr Peggy CHOI.

The Impact of Facebook on the Public Relations of the Standard Chartered Hong Kong Marathon

Abstract



QIU Guo Feng

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Research Question

Facebook is one of the most popular social media. As a web-based social network across the world, it allows users to share webpages and information globally. In view of the fast development of Facebook, users are now over 1 billion and there is an increasing trend. People are relying on social media to obtain information about sports events. The Standard Chartered Hong Kong Marathon (SCHKM) is one of the most popular mega sports events in Hong Kong. Every year, this sports event is hosted in Hong Kong with a lively atmosphere. This project proposes to investigate how the Facebook page of the SCHKM has affected the public relations of this event.

Objective

The main purpose of the current study is to examine if the Facebook page of the SCHKM will influence the reputation, impression and image of this event. By doing a survey, we can acquire details about the satisfaction of participants and citizens under the influence of the Facebook page.

Methodology

Data were collected by questionnaires sent on February 17 to 100 individuals participated in the SCHKM this year. The individuals must be above 18 years old. The questionnaire asks for some basic personal information and includes three main parts for better comparison and analysis. After collecting the data, I will use the SPSS software for a non-parametric test, with exclusion of other social media tools.

About the Investigator

I am Leo QIU and I am interested in sports and management. My FYP supervisor is Mr Jason MAK, who helped me correct the errors in this project. In addition, he gave me many useful suggestions such as the way to collect questionnaires. After graduation, I hope I can study a master's degree in Recreational Management in Hong Kong. I always pay attention to global sports events and I read books about recreational management. In the future, I want to be a good manager of a fitness room.

The Effect of Proprioceptive Training on the Agility of Hong Kong National First-team Cricket Players

Abstract

Research Question

Previous studies indicated that insufficient proprioception would affect the stabilization of lower limbs and the shifting weight stress on hips, knees, ankles and muscles would increase when one is changing directions. Some of the studies also reported on the relationships between injuries and proprioception as well as between agility and proprioception. To help sports players prevent lower limb injuries, this project proposes to enhance the proprioception to improve the agility of athletes.

Objective

The main purpose of the current project is to examine if cricket players have improved their agility after having proprioceptive training for six weeks. It aims to record the outcomes so as to better understand the relationship between injuries and proprioception.

Methodology

Data were collected from 15 cricket players who participated in a pre-test and a post-test conducted with purposive sampling technique. The subjects were tested on balance and agility separately in both the pre-test and the post-test for comparing the difference before and after the proprioceptive training program.

Preliminary Findings

Preliminary analysis showed that the balance and agility of most cricket players were average in the pre-test. It is found that the changing direction skills of the players were weaker than sprinting skills in the pre-test.



SZETO Yuk Yu

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

About the Investigator

I am SZETO Yuk Yu. My interest is sports and I am a rugby player. Mr Anthony BOSSON, my FYP supervisor, provided me with helpful advice in the preparation stage. I have joined Kowloon Rugby Club for three years and note that playing rugby results in a high rate of injuries among players. I hope I can use my knowledge and skills to plan a useful training program which can be applied to my rugby team for prevention of injuries. I want to be a sports therapist after graduation.

Customer Satisfaction and Customer Loyalty of Young Adults and Their Visits to Amusement Parks in Hong Kong



TAM Nga Yin

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

There is a lot of research studying amusement parks, but relevant research does not focus on young adults' layer. This project will focus on young adults and aims to find out the local tourist loyalty to Ocean Park and Hong Kong Disneyland. It will also find out the correlation between customer satisfaction and customer loyalty.

Objective

This research is designed and focused on young adult's customer loyalty and customer satisfaction with Hong Kong Disneyland and Ocean Park. Finally, this study will provide some recommendations for Hong Kong Disneyland and Ocean Park.

Methodology

Questionnaires will be distributed to around 200 people who are at ages 18 to 30. I will collect the questionnaires from January to March. I will use SPSS and G-power for the statistical analysis of data. Besides, the Mann-Whitney U test will be performed to compare the means of differences.

About the Investigator

I am Laura TAM from SRM. I love visiting amusement parks in different countries and cities including Hong Kong. This project can drive me to explore the customer satisfaction and customer loyalty of young adults in their visits to theme parks. Dr Peggy CHOI, my supervisor, gave me lots of useful suggestions in each step. After study, I hope I can work in the recreation and entertainment industry since I am very vivacious. I like playing sports and visiting amusement parks to know more about their daily operations.

Effect of Proprioceptive Training on the Agility of Hong Kong National First-team Cricket Players

Abstract

Research Question

Extant research claimed that agility played an important role in injury prevention. However, which training method is the best way to improve the agility level is unknown and unclear in the field. To fill the research gap and to reduce the risk of injuries of cricket players, this project proposes to improve the agility level by a 6-week proprioceptive training.

Objective

The main purpose of the study is to examine if the cricket players have improved their agility levels after a 6-week proprioceptive training which includes two components of proprioception, i.e., balance and coordination. It also aims to improve the balance levels of the players, reduce the risk of injuries and improve their agility.

Methodology

All participants have to undergo a screening procedure by filling in a questionnaire in order to make sure they are eligible to take part in this study. Those who pass the screening will undergo an experimental program in which they will have to complete a pre-test, a 6-week intervention program (proprioceptive training program) and a post-test to assess the effectiveness of proprioceptive training in agility. There are a total of two tests for testing the agility level, which are 5-10-5 agility test and Illinois agility test. The Y-balance test examines the balance level.



TSE Hoi Yan

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

About the Investigator

I am Coco TSE. My interest in sports therapy and sports training inspires me to do this project. Mr Anthony BOSSON, my supervisor, gave me useful advice in the planning stage. As injury prevention holds a key component in sports field, finding an effective way to reduce the risk of injuries by increasing the agility level is necessary. I hope I can fill the research gap by proving that proprioceptive training is possible to increase the agility level.

The Relationship between Service Quality and Customer Satisfaction of Visitors in Amusement Parks: A Case Study of Hong Kong Disneyland

Abstract

Research Question

In this study, I would like to use Hong Kong Disneyland as the target to explore three questions. Firstly, is there any relationship between service quality and customer satisfaction with Hong Kong Disneyland? Secondly, how do service quality and customer satisfaction induce customer behaviour? Last but not least, what is the current perception of customers on the service quality of Hong Kong Disneyland? The result and conclusion would be useful for us to improve different industries.

Objective

The main purpose of the current study is to provide a reference to recreation operators for development and improvement of services as this study can explain the correlation among the service quality, customer satisfaction and participants in recreation facilities. Operators and managers can base on the result of this study to develop their own marketing plans and directions in order to increase the utility rate of their recreation facilities.

Methodology

Data were collected by sending out questionnaires to people who have visited Hong Kong Disneyland. All data collected from questionnaires will undergo a data analysis through adopting the Statistical Package for the Social Sciences (SPSS). Moreover, correlation, linear regression and independent samples *t*-test will be conducted.

Preliminary Findings

Preliminary analysis showed that there was a correlation between service quality and customer satisfaction. The service quality and customer satisfaction have a direct impact on customer behaviour.

WONG Chi Ming

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

About the Investigator

I am WONG Chi Ming. One of the main reasons that inspires me to do this project is my internship in Hong Kong Disneyland. Moreover, my study is related to sports and recreation management. I hope to understand more about this area through the project. Understanding the correlation between service quality and customer satisfaction can help me improve my work in related businesses.

Factors Influencing Camper Participation in Sai Kung Outdoor Recreation Centre



WONG San Wa

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

Abstract

Research Question

In this study, campers who will answer interview questions honestly are needed. The study also limit campers to be the Leisure and Cultural Services Department (LCSD) camp users or holiday camp users. If the sample size is too small, it cannot reflect the true situation and so enough data is needed for this study. Yet, time and resources are the constraints.

Objective

This study aims to find out some of the factors influencing camper participation at Sai Kung outdoor recreation centre. It can help improve the currently reduced usage rate of the LCSD holiday camps. We mainly analyze people's internal and external motivation factors that affect their participation in the LCSD holiday camps. We do not consider some of the control factors. We may use the information to give suggestions to the LCSD to help them develop leisure facilities for holiday camps. The study will contribute to the benefits of society as a whole as camps play an important role in Hong Kong leisure activities. The study will find out the critical factors of leisure activities for managers and provide a new perspective of Hong Kong recreational activities.

Methodology

All campers' opinions will be collected by questionnaires. The questionnaire designed for this research consists of 2 sections: demographic profiles and satisfaction. The sample size for this study is 150-200 people and this study targets at campers aged 18 or over. The questionnaire will mainly be multiple choice questions.

Preliminary Findings

Results showed that factors that affected camper participation are the camping experience, the customer service, the sports participation, etc. Moreover, the camping environment, the enjoyment of campers, the users' experience, their appreciation of the camp and the physical challenges all influence participants.

About the Investigator

I am WONG San Wa. My interests are swimming and working out at the gym. My career goal is to become a teacher or a personal trainer. Miss Amy LIP is my FYP supervisor.

Acute Effect of Novelty Myofascial Release Method on Relieving Chronic Non-specific Neck Pain

Abstract

Research Question

Previous studies indicated that 45-54% of the general public were affected by non-specific neck pain, physiological disorders in the neck and shoulder regions related to muscular, joint and neural impairment. Various treatment protocols for non-specific neck pain have been used in physiotherapeutic practice. The research aims to figure out the superiority of non-specific neck pain treatment between a novelty myofascial release protocol and a static stretching protocol.

Objective

The study purposes to investigate the different effects of novelty myofascial release protocol compared to static stretching. Improvement in pain, active and passive cervical ranges of motion as well as neck disability are examined to define the superior treatment.

Methodology

26 individuals who had undergone clinical examinations to clarify no contraindications participated in this study. Participants received a novelty myofascial release protocol and a static stretching protocol on different days respectively. Participants were asked questions about neck pain at rest, at motion, with/without external pressure (by Pressure Pain Threshold indicator) and completed a modified questionnaire about neck disability for outcome measurement. Muscle contractile properties were tested and monitored by Tensiomyography with previous measurements in pre-test and post-test stages.



YONG Tze Ho
MAN Ho Sang
TSE Ho Sun

BSocSc (Hons) in Sports and Recreation Management

Faculty of Management and Hospitality

About the Investigator

We are Jackal MAN, Samson TSE and Jason YONG, year 4 students of Sports and Recreation Management. Our professionalism inspires us to do research on this issue. Mr Indy HO, our research supervisor, has given us detailed instructions and guidance on our research plan. We are interested in therapeutic practice and hope to provide more research-based options in clinical practice.



Faculty of Science and Technology

*Department of Construction Technology
and Engineering*

Department of Food and Health Sciences

The Development of a Biosensor for Real-time Analysis and Detection of Environmental Pollutants



CHAN Lay Heng Dinghy

BEng (Hons) in Environmental Engineering and Management

Faculty of Science and Technology

Abstract

Research Question

Recently, concerns about heavy metal ions in water or contamination of agriculture have been increasing. There are conventional laboratory methods for detecting those “harmful materials” though the time and cost of determination are high. So, studies on the development of biosensors for real-time analysis and detection of environmental pollutants are essential.

Objective

Technologies like “biological sensors” make use of bio-organisms or biological measures that can detect contaminants or heavy metal in a short period of time with high accuracy. So, the main focus of this study is to find out the most effective bio-organism for treating various heavy metal ions.

Methodology

The most updated scientific findings will be investigated to summarize the function, usage, and application of biological sensors in detecting heavy metal in water. The development of such a technique improves the quality of scientific research and provides a new perspective on experimental methods.

Preliminary Findings

There is a brief study on various bio-organisms. Invertase is one of the examples to detect mercury, lead, silver, and cadmium. Algae cells are able to detect the concentration of herbicide.

About the Investigator

I am Dinghy CHAN. I am interested in environmental protection, especially contaminated water. My supervisor, Dr Joe CHAN, always inspires me to find out more technological information and to solve questions creatively during my study. Dr CHAN always encourages me to solve questions for training my problem-solving skills. I would like to dedicate myself to working as an environmental engineer.

Synthesis and Adjustment of PHAs from Wastewater Treatment Process

Abstract

Research Question

Plastic products are commonly used in modern countries around the world but their recycling rate is less than 10%. To reach the goal of sustainability, it is necessary to find an alternative product with the same physical properties. Polyhydroxyalkanoates (PHAs) is a biodegradable natural substance which shares the properties of polymers in different structures and may act as an alternative to alleviate the situation.

Objective

The main characteristic of biodegradable plastic is the absence of environmental impacts on nature upon disposal, as compared to traditional plastic. For example, the structure of P(3HB) is brittle and stiff. With the incorporation of 3HV into P(3HB), P(3HB-co-3HV) will become more flexible and tougher for application. One major application of P(3HB-co-3HV) in life is replacing plastic products in food packaging. My FYP studies the ways to synthesize the maximum amount of PHAs by using wastewater and different sources of carbon.

Methodology

By using a sequencing batch reactor (SBR) to act as the model of a normal wastewater treatment plant, different sources of carbon are used for synthesizing PHAs. After extracting the outflow of treated wastewater, the amount of PHAs produced is calculated. Finally, the method with the maximum amount of PHAs synthesized is found for wastewater treatment works.

Preliminary Findings

To model normal wastewater treatment works, the removal rate of COD should be controlled at around 95%. In the ratio of 100:20 C:N ratio, the extraction rate of PHAs was about 9% by chloroform extraction in previous findings. In the future, my study will try to use more methods and sources to improve the extraction rate.



CHAN Siu Wai

BEng (Hons) in
Environmental Engineering
and Management

Faculty of Science and
Technology

About the Investigator

I am CHAN Siu Wai, a final year student majoring in EEM. In my academic study, I become greatly interested in wastewater treatment and sustainability. Therefore, I chose a FYP topic which could satisfy both of my interest. In the future, I hope to contribute my knowledge to my career. I give great thanks to my FYP supervisors, Dr Keane LIU and Miss Hilda MAK. They share a lot of ideas and knowledge with me so that my laboratory work can maintain good performance.

Study of the Production of Eco-Bricks by Using Ferrous Activated Persulfate Alkaline Fermented Biosolids

Abstract

Research Question

TiO₂ is a photocatalytic that can react with sunlight to disintegrate air pollutants like nitrogen oxides and sulphur dioxides. An eco-block for air purification is a paving block with a surface layer consisting of cement, aggregates, glass, and TiO₂. In the project, part of the aggregates is replaced by activated sludge. It reacts with TiO₂ and the reaction might affect the strength of the paving block. The goal of the project is to investigate the changes of properties of the paving blocks under various degrees of sunlight penetration.

Objective

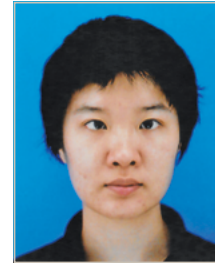
The study is to examine the compressive strength, water absorption, and toxicity of the paving blocks. The results will be compared with local and international standards to study the applicability of the paving units.

Methodology

To study the effect of different levels of sunlight penetration, three different sizes of crushed glass are used in the project. One type of glass is applied to the surface layer at one time. The proportion of glass varies in each design mix. The activated sludge is oven-dried and is mixed with TiO₂ to reduce its odor before application.

Preliminary Findings

An increase in the proportion of activated sludge reduced the compressive strength. The negative effect became more significant if the proportion of sludge was over 20% of the total weight of aggregates. Crushed glass reduced the compressive strength to a lesser extent than sludge. Water absorption increased with an increasing amount of sludge but decreased with an increasing amount of crushed glass.



CHEUNG Pui Ling

BEng (Hons) in Civil Engineering

Faculty of Science and Technology

About the Investigator

I am Pauline CHEUNG. My supervisor is Dr Keane LIU, who provides continuous guidance and support during my research. My interest is in construction materials. I hope the results of the project can give me a better understanding of the design of construction units, which is useful for my career development. Reusing sludge is a way to conserve non-renewable resources. It is important to develop innovative and applicable ways to minimize the use of resources. My goal is to become a civil engineer in the future.

Study of Ground Water Table Lifting by Sand Columns



CHEUNG Yiu Ming

BEng (Hons) in Civil Engineering

Faculty of Science and Technology

Abstract

Research Question

Sustainable development is commonly proposed in society. However, there are still no satisfactory methods or applications to fully utilize water resources on land today. In order to reuse resources in gardens, this project analyzes the water lifting behavior in specific sand, soil and environment. The results of analysis will be applied in several sand columns to lift the underground water level to benefit plants on the ground surface, instead of using extra irrigation systems.

Objective

The major aim of the project is to figure out the water lifting ability of different sand columns in the ground. Also, the characteristics of water motion under the effect of surface tension will be analyzed and a model will be built for further investigation into the topic.

Methodology

Literature review of the water lifting phenomenon driven by surface tension was conducted first. Based on the review, hypotheses of using sand columns in the ground to lift the water level were figured out. After that, data were collected from experiments on water movement in different density of sand columns and simulations of sand columns placed in the ground. The results will be used for further analysis and improvement.

Preliminary Findings

Preliminary observations reflected that higher density of sand columns would cause a higher final water level and a greater rising speed. There is a need to improve the ground simulation apparatus in order to have a better observation of the effectiveness of the design.

About the Investigator

I am Tony CHEUNG. I am interested in the phenomenon that water seems to exceed the limit of gravity and keep rising to a specific height. This drives me to learn more about the theory and do more experiments throughout the project. My supervisor, Dr Keane LIU, gave me a helping hand and discussed the project with me patiently. I hope I can figure out a workable application of the liquid's characteristic in order to reuse land water resources.

Evaluation of Hydraulic and Mechanical Properties of Porous Concrete Mix Design



CHU Wing Tat

BEng (Hons) in Civil Engineering

Faculty of Science and Technology

Abstract

Research Question

Most of the pavements of roads are impermeable. Therefore, their application must be installed with drainage pipes to prevent flooding. Also, the roads should have slightly different levels between them to drain off water. In my project, I will study the possibility of using porous concrete for new pavements in areas with low traffic such as cycling tracks and parking areas.

Objective

The project aims to find out the hydraulic and mechanical properties of porous concrete mix design; and to analyze the possibility and cost of using porous concrete for pavements.

Methodology

This project has two parts, including an experiment and a result analysis. The experimental part aims to find out the hydraulic and mechanical properties of porous concrete mix. I will mix the concrete with aggregate of different sizes. Then, I will find the compressive strength and permeability through conducting a compression test and a permeability test. In the second part, I will analyze the experimental results to see which concrete mix design is suitable for pavements.

Preliminary Findings

Preliminary experimental results showed that compressive strength was indirectly proportional to permeability (size of aggregate). The application of permeable pavements reduced the construction costs of parking areas and cycling tracks by eliminating the need for drainage pipes.

About the Investigator

I am Mike CHU. I like the experimental part of the project because it allows me to take full charge of it. My supervisor is Dr Anjana SAI SURESH. She gave me a lot of advice about the experiment. Also, she guided me to the right track of research. I want to become an engineer in the future.

Wood Waste to Energy – Conceptual Process Design of a Biomass Conversion Plant in Hong Kong

Abstract

Research Question

According to the "Monitoring of Solid Waste in Hong Kong" reports published by the Environmental Protection Department, the average daily quantity of wood/rattan waste produced by industrial and commercial activities was about 300 tons from 2007 to 2011, and further increased to 325 tons in 2016. Due to the low economic value of wood waste and the high cost of recycling, there is a lack of strong motivation to run a wood waste recycling business in Hong Kong. Wood waste is usually delivered to landfills, producing emissions of ~ 475 tons of carbon dioxide every day. In 2014, the percentage of wood waste recycled was only about 5.15%.

Objective

The main purpose of the current study is to explore the feasibility of constructing a chemical plant to convert wood waste to fuel in Hong Kong.

Methodology

The process will be designed and the economic factors analyzed using SuperPro Designer®. The data of fuel components chemically converted from wood will be based on several experimental results. The fuel components produced will then be blended with reformates or other chemicals to produce gasoline which fulfills the gasoline fuel standard in Hong Kong.

Preliminary Findings

Preliminary analysis showed that in order to meet the stringent gasoline requirements (such as benzene vol % ≤ 1) in Hong Kong, the volume ratio of the blending of bio-based components and reformates/chemicals should be 2:3 to produce bio-gasoline. Details of the economic analysis will be presented.



CHUA Sim Ying

BEng (Hons) in
Environmental Engineering
and Management

Faculty of Science and
Technology

About the Investigator

My name is CHUA Sim Ying. My interest in sustainable development inspires me to do this project. Ir Dr Alex TSANG, my supervisor, gave me useful advice and guidance in the planning stage. My biggest hope is that all countries will continue to promote research and development in exploring alternative energy resources and implement smart energy policies. My career goal is to become a qualified environmental engineer.

Feasibility Study on Using BIM Software for Hong Kong BEAM Plus Submission

Abstract

Research Question

Nowadays, green building is a hot topic in the world. Thousands of engineers, architects, and college students immerse themselves in this topic. We are in a trend towards saving energy, lowering water consumption, and developing sustainable energy.

Since the BEAM Plus assessment covers many aspects, for example sites, materials, energy use, water use, indoor environmental quality, innovations and additions, it involves submission of lots of data and documents or reports. Several problems can be found during the submission. A conventional submission causes disorder since lots of reports and paper documents are needed. The environmental consultants face high pressure from collecting a full set of documents to meet the standard of BEAM Plus. Since the consultant can only submit a full set of documents upon the completion of a project, some data may be missing due to human negligence. The missing or lost data may affect the assessment as well as a building's rating.

Objective

This project plans to integrate BIM into the BEAM Plus projects to (1) enhance the effectiveness of work for the architecture, engineering and construction industries; (2) simplify the document submission process; (3) add green information, raise management's awareness, and facilitate communication among clients, engineers, consultants and the HKGBC; (4) diffuse BIM usage in 6D BIM; and (5) show how some of the barriers to green building can help to understand synergies with the help of BIM's potential.

Methodology

1) Data collection

The data of this project mainly comes from online research papers. The search topics include "the relationship between BIM and LEED", "China 3-star Certification", "Energy Auditing" and other sustainable items. The following reports and handbooks are also studied: THEi (Tsing Yi) Energy Audit Report, Full set BEAM Plus for new buildings V.1.2, provisional assessment report of construction projects in Ma Tau Kok, Handbook of BEAM Plus Existing Buildings V.2.0, and Handbook of BEAM Plus New Buildings V.1.2.

2) Autodesk Revit simulation and calculation

Revit will be used to simulate a building in terms of energy usage, water usage, and material usage.

About the Investigator

My interest is hiking since I like to be very close to nature. Having been trained in environmental engineering and management, I am fully confident in serving the community with the use of such professional knowledge. I will put all my effort into building up my career as an environmental engineer because it is my keen interest and it fits my active and helpful character. Last year, I worked at a construction site and was a member of the Environment Department. I became interested in construction and project management, especially environmental monitoring and audit (EM&A). Ir Dr Alex TSANG is my FYP supervisor.



CHUNG Choi Yat Oscar

BEng (Hons) in
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Technology

Improving Energy Efficiency of the Water Pump System by the Balanced Wave Technology at a Petrochemical Production Plant

Abstract

Research Question

China petrochemical industry is facing the challenges to meet the strict targets of energy consumption and carbon emission reductions. Water pumps are widely used process equipment to produce chemicals. Therefore, it is economical to improve the energy efficiency of the water pump system to reduce the electricity consumption of factories. As regards the electrical components of the system, current technologies of variable frequency drives and superconducting transmission lines cannot be applied to improve the existing system with a fixed load.

Objective

This case study is to quantify the energy reductions from the Balanced Wave Technology devices (BWTs) on an electric circuit of a water pump retrofit with the existing hardware and fixed output. This applied research demonstrates how Environmental Engineering students could apply innovative energy-saving technology to industry.

Methodology

A field test was conducted in 19 weeks on a closed loop water circulation system at a petrochemical plant in China. In the switchboard, two BWTs were added to an individual motor control section of each in use pump. The measurement and verification method of energy saved from the devices were Option B of the International Performance Measurement and Verification Protocol. All energy consumption and operational parameters were continuous metering in the factory direct to minimise uncertainty. These measurements were taken during the baseline, post-installation, and actual performance periods of the BWTs.

Preliminary Findings

An average electricity saving of about 10.03% was recorded in a 5-week reporting period. In this amount, 35,000 kWh of electricity was saved on a yearly basis and was equivalent to the emissions of 26 metric tons of carbon dioxide.

About the Investigator

I am Gaye HO. I believe being able to use our natural resources efficiently can lead to more sustainable development when the world is driven by economic growth. To strive for a balance between profitability and environmental considerations, my desire to carry out a project on energy efficiency is practical. Ir Dr Alex TSANG, my supervisor, introduced me to the Balanced Wave Technology and guided me to report verifiable energy saving. I hope energy saving technologies can promote active energy management in organizations.

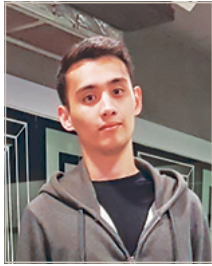


HO Shuk Kei

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Effective Extraction of Lignin from Chinese Medicine



KURT Ejder

BEng (Hons) in Environmental Engineering and Management

Faculty of Science and Technology

Abstract

Research Question

Lignocellulose is a huge renewable source of biomass that has tremendous potential to become one of the major sources of clean energy. By finding the most effective way and species to produce the largest yield of lignin, the project can make contributions to the study of renewable energy.

Objective

The purpose of this project is to find out the most effective way to extract lignin by experimenting on the extraction of wood pulp. Then, the most effective way will be used to extract herbaceous Chinese medicine. The ultimate goal is to find out which Chinese medicine has the largest yield of lignin.

Methodology

HCl catalyst method:

- First, boil wood pulp, catalyst, and solvent (ethanol) together.
- After boiling for 12 hours, we get a mixture of lignin and distilled water by filtering the content and drawing out the solvent.
- Then, we filter the mixture and dry the lignin.
- Finally, we get lignin.

Preliminary Findings

I used methanol and ethanol as solvent. The yields of lignin are about 3.6% to 12%.

The amount of lignin extracted by ethanol is more than using methanol as solvent. Maybe ethanol is better solvent for lignin extraction. I have to repeat the extraction many times by changing some parameters.

About the Investigator

I am studying Environmental Engineering and Management. It is my pleasure to participate in this meaningful research. I hope I can get some surprising results. My FYP supervisor is Ir Dr Alex TSANG.

Electrospinning Synthesis of Polyethylene Terephthalate-based Separators from Plastic Bottle Waste for Applications in Lithium-ion Batteries

Abstract

Research Question

With the increasing use of disposable plastic products, proper treatment of plastic waste has raised considerable concerns in recent years. However, traditional treatment of plastic waste by landfills and incineration will not only cause serious environmental pollution but will also result in severe waste of non-renewable resources.

Objective

In this study, polyethylene terephthalate (PET) based separators were synthesized with plastic bottle waste by electrospinning strategy. Waste-to-resource study demonstrated the great potential of PET-based separators derived from plastic bottle waste for promising applications in lithium-ion batteries.

Methodology

With the optimized applied voltage, tip-to-needle distance, dosing volume and polymer concentration, PET-based separators could be successfully synthesized with a controlled thickness of 30-40 μm . Scanning electron microscopy (SEM) analysis suggested that PET fibres were typically a few millimeters in length and ~ 100 nm in diameter.

Preliminary Findings

Differential scanning calorimetry (DSC) test confirmed that PET-based separators exhibited higher thermal stability than commercial PE-based separators (Celgard® 2400), probably due to the higher melting point of PET polymers. PET-based separators also manifested higher porosity (e.g., 87%) and better electrolyte uptake (e.g., 609%) than commercial PE-based separators. More importantly, when evaluated in coin cells, PET-based separators showed better electrochemical performance than Celgard® separators.



LAU Ka Yat Ivan

BEng (Hons) in
Environmental Engineering
and Management

Faculty of Science and
Technology

About the Investigator

I am Ivan LAU from the program of Environmental Engineering and Management. I am well-trained in this programme and interested in reducing waste with recycling technologies. With my professional knowledge, I aim to contribute to society and industry with advanced waste reduction technologies. Therefore, my final year project is about using recycled PET bottles as the main materials for Li-ion battery separators. I want to become a chartered environmental engineer. My project supervisor is Dr Helen LU.

Case Study of a Methanol Production Plant: Carbon Emission Mitigation and Economic Analysis

Abstract

Research Question

Nowadays, energy demand surges with the increasing population. Limited fossil fuel reserves lead to global energy problem. Methanol is not only one of the most important chemical building blocks but also an important energy source. Global methanol production is about 110 million metric tons per year. Each day, nearly 200,000 tons of methanol is used as chemical feedstock or transportation fuels. However, the production process of methanol causes serious carbon emission problem. In this project, a case study of a methanol production plant in Inner Mongolia was conducted. The energy production process was re-designed to minimize carbon emissions and increase production capacity.

Objective

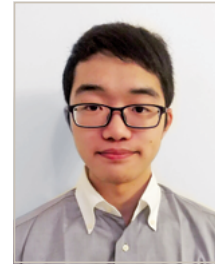
A methanol synthesis process depends on the chemical reaction among carbon dioxide, carbon monoxide and hydrogen to produce methanol. The main purpose of the study is to perform a process retrofit of the current methanol synthesis system and to test its technical performance. Economic analysis will be performed on the retrofit to see whether the improved process is economically viable.

Methodology

The modeling used the Aspen Plus V9 simulation pack, which simulates process data for analysis, such as the yield of methanol products, energy used and other data before and after the retrofit. Moreover, data were collected from the literature for process input.

Preliminary Findings

The modeling processes of the methanol synthesis reactor and distillation tower have already been finished and these help separate the methanol and other byproducts.



LAU Yuk Long

BEng (Hons) in
Environmental Engineering
and Management

Faculty of Science and
Technology

About the Investigator

I am a student of Bachelor of Engineering (Honours) in Environmental Engineering and Management. I am interested in energy; the methanol synthesis process increases my knowledge about alternative energy. My career goal is to work in the energy industry. My FYP supervisor is Ir Dr Alex TSANG.

Review of International and Local Standards of Road Drainage Design

Abstract

Research Question

In this final year project, the development of drainage services in Hong Kong and the United States will be outlined. Information on rainfall will also be given. The background of Hong Kong and the U.S. is to provide general information on drainage services which helps to review the difference in the standards of road drainage design between Hong Kong and the U.S. This project will focus on comparing the codes of practice in drainage design between Hong Kong and the U.S.

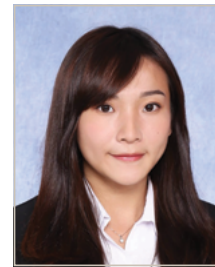
Objective

In this project, the characteristics of each design manual on Hong Kong and the U.S. will be found and suggestions for improvement will be made for Hong Kong drainage design system. The objectives of this project are to:

- Compare the difference between Hong Kong and the U.S. international codes of practice for road drainage design;
- Provide suggestions for improvements to Hong Kong drainage design manual system.

Methodology

Data collection is a stage in any areas of study. At this stage, the project's resources and requirements, literature review and schedule are planned in order to get more information about the study. All the materials were collected from journals, textbooks and research papers gathered from libraries and the Internet. Within the data collection period, the drainage manuals from 50 U.S. states were found on the Internet and were analyzed. This research tries to find out the drainage design methods and the criteria used in the adoption of each design method.



LEE Yuen Wing

BEng (Hons) in Civil Engineering

Faculty of Science and Technology

About the Investigator

I am LEE Yuen Wing. My interest in civil engineering and drainage services inspire me to do this project. Ir Dr Gordon LEUNG, my supervisor, gave me useful advice in the planning stage. I hope I can make a contribution to society via giving suggestions for Hong Kong drainage system in this final year project. I aim to be a successful engineer after my graduation.

Study of Lighting Design in Lecture Theatres Using Emotional Design Concept



LEUNG Hoi Man

BEng (Hons) in Building Services Engineering

Faculty of Science and Technology

Abstract

Research Question

Nowadays, people tend to have a high standard of lighting design for education purposes owing to a deeper emotional request. People in the 21st century are more demanding of lighting which can satisfy specific human sensations and personal requirements. However, there are not many studies investigating the lighting design in the human psychometrical aspect.

This study focuses on investigating and applying the concept of emotional preferences in lecture theatres. Research has shown that school lighting design affects students' and academic staff's work efficiency.

Objective

The project aims to investigate the emotional impact on humans when exposed to different lighting and colour settings in lecture theatres. Unlike the traditional lumen method, this project aims to elevate the effects on human emotions which in turn will generate positive or negative effects on students' productivity.

Methodology

Data were collected by sending out questionnaires to students participating in this study. They were asked questions about the emotional fluctuations after changes of light settings. One of the experiments is called colour study in which two to three light sources are selected in the design brief to provide the colour tunable function with a wide range of colours both saturated and white. The investigator will adjust the intensity and colour over time in the experiment.

About the Investigator

I am Hermes LEUNG, a final year student majoring in Building Services Engineering. My research interests are lighting technology and HVAC. I am curious about lighting design in the psychometrical aspects. After I had discussed with my supervisor, Ir Dr Sam HUI, I decided to apply the concept of emotional design in my study. I would like to apply my study in my future career as a building services engineer.

Feasibility Study on Water Current Electric Power Generator

LEUNG Pak Ho

BEng (Hons) in Civil
Engineering

Faculty of Science and
Technology

Abstract

Research Question

Ocean monitoring is crucial at a time when the world's marine ecosystems are undergoing great challenges posed by global climate change. Due to the technical difficulties of battery replacement and rotor maintenance underwater, the monitoring sensors require another reliable energy source. The enormous and inexhaustible ocean currents have great potential as an alternative charging source for the devices and future electricity generation.

Objective

In order to harness the hydrokinetic energy from water currents, several turbine systems have been proposed and their feasibility in terms of experimental and numerical performance will be investigated. Also, the key hurdles and latest technology or models of hydrokinetic energy conversion (HEC) practice will be reviewed.

Methodology

The proposed design includes a cylindrical vertical axis turbine, an overlapped Savonius turbine, a helix and a spiral turbine. These rotors are modeled in 3D CAD software and manufactured into physical models by a 3D printer. Experimental data concerning the 3D-printed rotors have been acquired by an open channel. In addition, some numerical data have been simulated using Computational Fluid Dynamics (CFD) analysis under the same condition for comparison.

About the Investigator

I am LEUNG Pak Ho. My interest in hydrodynamics and environmental conservation inspires me to do this project. Dr Keane LIU, my FYP supervisor, gave me practical advice and guidance for my pursuit of hydrodynamic knowledge and software skills. I hope the turbine system I designed can be used in practice and ease the demand for renewable energy sources. I wish my professional knowledge of hydrodynamics and my innovative design could aid environmental protection.

Spatial Analysis of the Effect of Land Use on Urban Traffic Crashes

Abstract

Research Question

In 2017, 108 people were killed by traffic crashes in Hong Kong. Traffic crashes are undesirable by-products of modern transportation operations. The frequency of traffic crashes may be the result of many factors interacting with one another and it is not limited to carelessness of drivers or pedestrians. This study is devoted to studying the impacts of socio-demographic factors and land use on traffic crashes and analyzing their correlations. Based on the results obtained, appropriate measures can be adopted to reduce the occurrence of traffic crashes.

Objective

The main purpose of the study is to model the relationship among land use, socio-demographic factors and data of traffic crashes in the 18 districts of the Hong Kong Special Administrative Region. This will unveil the critical land use and socio-demographic variables that are associated with fatal crashes.

Methodology

The data were collected from relevant government websites to ensure their accuracy, authenticity and credibility. After obtaining the required data, QGIS and SPSS software will be used to establish a spatial data model, to compare and analyze the data, and to study the correlations of variables. Multi-level modeling may be adopted to incorporate the hierarchical nature of land use and demographic variables.

Preliminary Findings

At this stage, a preliminary spatial model was established using the traffic crash data and GIS software. It was found that areas with a frequent occurrence of traffic crashes were mainly areas with a large population.



LIU Zhi Feng

BEng (Hons) in Civil Engineering

Faculty of Science and Technology

About the Investigator

I am LIU Zhi Feng, a final year student majoring in Civil Engineering. My interest in Transportation Engineering prompted me to choose this research topic. Dr Anjana SAI SURESH, my supervisor, gave me useful advice at different stages of the study. I hope that the results of the project will help improve transportation safety in Hong Kong. In addition, this project expands my knowledge of problem analysis. As a Civil Engineering student, the experience of dealing with different engineering problems will help develop my career path after graduation.

Feasibility Study of a Proposed Bus Rapid Transit System in Hong Kong

Abstract

Research Question

Serious traffic congestion and overcrowding on mass transit network in Hong Kong have caused delays and increased the commute time of citizens. To provide an efficient, reliable and environmentally friendly public transport service, Bus Rapid Transit (BRT) is an alternative transport option to fulfill the greater transport need. The BRT system has speed and reliability comparable to rail; it also has higher flexibility and a lower cost, and can be easily integrated into the existing transport system.

Objective

The main purpose of this project is to carry out a comprehensive study of high capacity transit modes and create the need for a BRT system in Hong Kong. It also aims to identify the transport infrastructure and technological requirements for building the BRT system.

Methodology

Research on the characteristics of the BRT system and current public transport in Hong Kong was done to find out the considerations for planning a local BRT system. SWOT analysis was performed to identify the possible BRT corridor locations. A questionnaire survey will be conducted to understand the public's willingness to use the proposed BRT system and their opinions on this new transport option.

Preliminary Findings

Preliminary analysis showed that there was potential to develop a BRT system along Tolo Highway from Sha Tin to Sheung Shui. The proposed BRT system will address some of the renowned traffic issues along this route, as well as offering new solutions to meet new demand in the future.



SEK Tsz Lok

BEng (Hons) in Civil Engineering

Faculty of Science and Technology

About the Investigator

I am Paco SEK, majoring in Civil Engineering. My interest in transport planning inspires me to do this project. Dr Anjana SAI SURESH is my supervisor and she gave me useful advice on the project. I would like to develop a career in the transportation engineering field. I hope I can participate in resolving the traffic and transportation matters by planning or designing new transportation systems and infrastructures with innovative solutions.

Study of Seismic Behaviour and Shear Strength of RC Beam Column Joint



TANG Ho Fai

BEng (Hons) in Civil Engineering

Faculty of Science and Technology

Abstract

Research Question

Beam-column Joint (BCJ) plays an important role in most structures, including reinforced concrete buildings, because it transfers the loadings from horizontal elements (such as slabs and beams) to vertical elements (like columns and foundations). There are lots of codes of practice and research related to BCJ's strength and behaviour under usual situation, which combines self-weight, imposed loads, and wind load acting on the structures. However, there are limited findings about BCJ's seismic behaviour and its mechanism in resisting earthquakes. Therefore, the current study has been initiated to find out the major factors affecting the seismic behaviour of BCJ.

Objective

The main purpose of the current study is to examine the effect of eccentricity (i.e., offset the centreline of the column), aspect ratio of the beam part of the BCJ and the number of joint reinforcement on the seismic behaviour of the BCJ. It also aims to devise a formula describing the BCJ's seismic behaviour, with the studied factors included.

Methodology

The current study consists of two parts, experiments and numerical estimations. For the former one, several BCJ specimens with different specifications and configurations such as different eccentricity of the beam connected to the column will be cast and tested to see how the factors affect BCJ's seismic behaviour. In the meantime, numerical estimations including the cracking patterns of the BCJ's seismic behaviour will be carried out by "Atena Studio". Based on the test results and the estimation, data analysis will be done and comparison between different specimens will be made.

About the Investigator

I am Anson TANG. My interests are team sports like soccer and field hockey as well as hanging out with friends. Throughout the current study, teamwork is vital since testing such a large BCJ specimen cannot be done by just one person. Besides, this study gives me an opportunity to apply my knowledge in practice, especially casting the reinforced concrete structure. My FYP supervisor is Ir Dr Simon WONG, who gave me lots of advice and the right direction for carrying out the study.

Silicon and Carbon Nanotube and Their Use in Insulating Materials for Lithium-ion Batteries

Abstract

Research Question

One of the advantages of current lithium-ion battery technology is higher operating voltage than Ni-MH and Ni-Cd batteries. The operating voltage of the single cell of lithium-ion battery is as high as 3.6v~3.8v. In addition, the lithium-ion battery capacity density is large, and the capacity density is 1.5~2.5 times or higher of nickel-hydrogen battery or nickel-cadmium battery. Moreover, the lithium-ion battery self-discharge is small, and its capacity loss is small after being placed for a long time and it can be used for a longer time because its normal cycle life can reach more than 500 times.

Although Si materials have a high capacity, their large volume expansion during lithium intercalation will seriously affect their cycle performance. The Si material has a volume expansion of more than 300% after lithium intercalation, which not only causes the material particles to be broken and pulverized, but also destroys the fragile SEI film on the surface of the particle, and the leakage of the fresh electrode surface causes the electrolyte to continue to decompose on the electrode surface. It will seriously affect the cycle performance of Si materials.

Objective

In order to solve the problem of expansion and contraction of tantalum itself, the Si material has nanometer that can reduce the stress generated after expansion. In addition, it adjusts the slurry ratio, temperature and pressure of Si and C to prepare a porous carbon anode material. Design to facilitate the rapid reaction of lithium ions in the electrolyte with the active species (Si/C) in an electrochemical reaction is done. Modifying a layer of conductive carbon can reduce the surface area of the powder which can increase the conductivity between the powders, and help to reduce the irreversible chemical or electrochemical reactions to achieve a low irreversible and higher capacity.



TAO Yat Chun

BEng (Hons) in Environmental Engineering and Management

Faculty of Science and Technology

About the Investigator

I am an organized and outgoing person with strong interpersonal skills. I actively pursue a career in environmental engineering and related disciplines. Dr Helen LU is my FYP supervisor.

Conceptual Process Design for Recovery of Spent Hydrogen Storage Material



TSOI Chun Ho

BEng (Hons) in Environmental Engineering and Management

Faculty of Science and Technology

Abstract

Research Question

Recent studies showed that fossil fuels caused a huge amount of air pollutants and carbon emissions which lead to global warming and extreme climate change. To alleviate these environmental damages, hydrogen fuel cells are used in our research. The solid H₂ storage materials are investigated in fuel cell operations because it is easily stored and it reduces some solid waste during fuel cell operations. Unlike hydrogen gas, the materials are utilized as energy carriers for fuel cell operations and the most economical method in fuel cell operations.

Objective

The main purpose of the current study is to evaluate and find a viable pathway for recovery of spent hydrogen storage material.

Methodology

The design and the process flow of recovery of spent hydrogen storage materials were performed using Aspen V9.0 software. The required output of economic parameters, energy parameters and EDR exchanger feasibility parameters were used for further economic analysis. The proposed regeneration process are generally amination, reduction, ammonization, digestion, etc. It also consists of multi-step regeneration protocols and one-pot regeneration protocols.

About the Investigator

I am TSOI Chun Ho. My interest in environmental engineering inspires me to do this project. Ir Dr Alex TSANG gave me useful advice in the planning stage. I gained much experience related to energy stimulation and renewable energy projects. I want to be an environmental engineer after graduation.

Lignin Extraction from Wood and Used Chinese Herbal Medicine by Acidic Alcohol-based Solvent Pulping and AZC Method

Abstract



WONG Hing Ho

BEng (Hons) in Environmental Engineering and Management

Faculty of Science and Technology

Research Question

Every day, used Chinese medicine was disposed in landfills while some of the used Chinese medicine still contains useful materials; for example, Lignin. Lignin is a valuable material with wide usage. The research of extracting lignin from wood has been conducted for many years and the same extraction method, when adopted in used Chinese medicine waste, would be helpful in the sustainable development of society.

Objective

The main propose of the research is to investigate the method of extracting Lignin from wood and used Chinese medicine. It aims to find out the result of using the lignin extraction method on wood to extract the lignin from used Chinese medicine, then to improve the methods for better yield.

Methodology

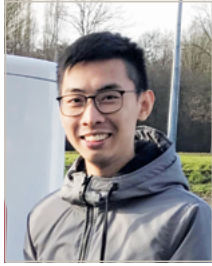
Two extraction methods, Acidic alcohol-based solvent pulping and AZC Method applied on wood and Chinese medicine were tested. The chosen species for extraction would be Cypress and Baphicacanthis Cusiae Rhizoma Et Radix (Nanbanlangen). Acidic alcohol-based solvent pulping and AZC Method would be used for extracting the samples for six trials, then the results would be analyzed. The literature review would be commenced to find out the possible improvement of the extraction methods. Then, the improved extraction methods would be tested and compared to previous experimental results.

About the Investigator

My name is Nelson WONG. I am interested in sustainable development especially material reuse. Ir Dr Alex TSANG, my supervisor, inspired me to do research on material reused from waste and provided a lot of useful advice from his solid laboratory experience. I hope this final year project can help reuse waste for sustainable development and reduce waste disposal in landfills. I want to be part of the sustainable industry in the future.

Electrospinning Synthesis of Fibrous Si/C Composites with Micro/Nanostructure for Lithium-ion Batteries

Abstract



WONG King Wai

BEng (Hons) in Environmental Engineering and Management

Faculty of Science and Technology

Research Question

Rechargeable lithium-ion batteries (LIBs), regarded as one of the most promising energy storage systems, are of great significance for the electrification of road transportation. With increasing demand for high energy density materials, conventional electrode materials of relatively low specific capacities, such as graphite anode materials (372 mAh/g), will not be able to satisfy the requirements of future LIBs. Recently, silicon-based materials have been identified as greatly potential anode materials for LIBs, owing to the highly theoretical specific capacity (4200 mAh/g). Because of the high lithium storage capability and the semiconducting nature, several critical problems of utilizing silicon-based materials in repeated charge-discharge cycles, such as dramatic volume expansion and poor electric conductivity, need to be circumvented for practical applications in LIBs.

Objective

The main purpose of this study is to improve the performance of lithium-ion batteries by synthesizing C/Si composite anode with polyvinylidene difluoride (PVDF) and silicon nanoparticles using the electrospinning technique and to solve the PVDF/Si fibre cloth structural deformation during carbonization.

Methodology

In this study, fluorinated silicon/carbon composites (F-Si/C) with porous and micro-/nanoarchitectures were synthesized by the electrospinning process with PVDF and silicon nanoparticles for achieving high lithium storage performance and superior cycling stability. After spinning, PVDF/Si fibre cloths were then dried and chemically stabilized with Tetrabutylammonium bromide and sodium hydroxide prior to the carbonization. The carbonized F-Si/C composites were then milled to powder and made into coin cells.

Preliminary Findings

The results suggested that as-synthesized F-Si/C materials were composed of fluorinated carbon fibres embedded with ~100 nm silicon nanoparticles. The electrochemical performance also confirmed that the F-Si/C composite materials could achieve a reversible specific capacity of ~ 2000 mAh/g at current density of 500 mA/g over 100 cycles.

About the Investigator

I am Walter WONG. My interest in batteries leads me to this project. Nowadays we often use mobile devices throughout the day, so batteries usually run out before the evening. As we want more powerful mobile computing devices and longer usage time, the battery capacity needs to be increased. Dr Helen LU, my supervisor, gave me advice on how to improve battery performance with the electrospinning technique to synthesize anode materials. I hope I can further my research on battery improvement in electrochemical engineering. I want to study a master's degree in related topics after graduation.

Mode Choice Modelling for Ground Access of Air Passengers

Abstract

Research Question

Since the demand for air transport is increasing annually, the government and various transport operators are required to implement new policies to maintain high efficiency of airport access. There are limited studies on the ground access mode choices of air passengers in the Hong Kong airport; therefore, there is a need for investigation.

Objective

The main purpose of the current study is to analyze airline passengers' behaviour of airport access mode choices by conducting a questionnaire survey. The mode choice behavior based on the travel, occupational and personal characteristics of the passengers will be determined by data analysis and mode choice modelling.

Methodology

An inductive approach is adopted in this study and it aims to generate meanings from data collected based on identifiable data patterns and relationships. Data were collected by personal interviews or questionnaires completed by voluntary participants. Around 200 arriving and departing air passengers were interviewed so as to understand their travel choices to airports. They were asked about their mode choices, personal backgrounds and purposes of travelling. They were also requested to give ratings on their satisfaction levels and the expected risk of delay by various transport modes. The data collected will be analyzed using statistical software like SPSS to generate the mode choice model.

Preliminary Findings

Factors that affect air passengers' mode choices to airports include their personal reasons, characteristics of trips, personal expectations and perceptions of the performance of various modes. It is observed that mode choices are significantly affected by travel cost, directness of flights, quality of service, and travel time.



WONG Kok Yin

BEng (Hons) in Civil Engineering

Faculty of Science and Technology

About the Investigator

I am WONG Kok Yin. My interest in urban planning inspires me to do this project. Dr Anjana SAI SURESH is my FYP supervisor. She gave me useful advice in all stages of the study. I hope that this study will provide a deeper understanding of people's decision making process in their mode choices to airports. Proper policies can be adopted accordingly to meet the demand in future.

Smart Films on Façade Glazing for Effective Daylight Control



WONG Wai Lok

BEng (Hons) in Building Services Engineering

Faculty of Science and Technology

Abstract

Research Question

Daylighting is always a major issue in building the indoor environment. Smart films provide a new alternative for designers to save the need for artificial lighting as well as the amount of energy used. This research aims to investigate the feasibility of applying smart films on façade glazing for effective control of daylight.

Objective

The primary objectives of this project are to make reference to a base case (a target room) and analyze the difference of lighting levels upon applying the smart film. Then, I will compare the illuminance level of a surface before and after applying the smart film. After that, both the environmental and economic benefits of the overall result will be evaluated.

The project will also attempt to address the feasibility of adopting the smart film automatic on/off control by the programming in the Arduino board, equipped with sets of digital and analog input/output(I/O) pins that may be interfaced to breadboards to carry out different commands.

Methodology

The research will be done by comparing the performance of smart films with the same building target. It involves (1) on-site investigation, as the result and data need to suit the actual situation; (2) computational simulation using some software which should be useful for energy simulation of the building. For the part of adjusting the smart film automatically with the control of Arduino, it involves (1) lab experiments, such as to test the voltage required for smart films to be functional; (2) programming, coding and data input into Arduino to drive the system.

About the Investigator

I am studying Building Services Engineering and I am very interested in exploring the innovative design which can apply my professional knowledge to building design. This is the reason I chose this topic for my final year project. With Ir Dr Roger NG's professional supervision and technical advice, I hope this research can contribute to the development and adoption of green and "smart" building design in Hong Kong.

Repetitive Hand Movements Increase the Risk of Carpal Tunnel Syndrome: Workplace Risk Factors and Primary Prevention



CHEUNG You Sing

BSc (Hons) in Health Care

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Abstract

Research Question

Carpal tunnel syndrome (CTS) is relatively common and occurs in different occupations like secretaries and construction workers. Some studies reported that CTS was associated with repetitive hand movements such as repetitive gripping tasks and wrist flexion. The increased risk between CTS and repetitive hand movements is still unknown. Therefore, this project aims to fill the research gap and helps people prevent CTS.

Objective

In this study, activities associated with repetitive hand movements leading to the increased risk of CTS are identified and assessed. The results can raise awareness of health among people to reduce the incidence of CTS through primary prevention during repetitive hand movements in the working environment.

Methodology

Data were collected from relevant research papers from 2009 to 2019. The inclusive criteria are people working on conveyor belts, meat packers, musicians, farmers, mechanics, factory workers, construction workers, etc. Repetitive manual tasks with flexion and extension of the hand at the wrist, forceful gripping with the hand or hand-arm vibration such as power saws and stone drillers can lead to an increase in the volume and pressure in the carpal tunnel.

Preliminary Findings

Several repetitive hand movements correlating with identified CTS include arm vibration, forceful manual exertion, bending/twisting of wrist and combinations of these factors. Although these factors are thought to be related to CTS, the relationship and mechanism of factors causing CTS are still controversial.

About the Investigator

I am Firen CHEUNG. I love playing online games and using mobile applications, which inspire me to do this project in the first place. Dr Cris LIU, my supervisor, taught me how to do literature review and helped me clarify the relationship between repetitive hand movements and CTS. My dream career is Physical Therapist as I can provide professional treatment for CTS patients and emphasize the damage of repetitive hand movements.

The Microbiological Quality of Swiss Rolls and Ham & Egg Buns in Hong Kong

Abstract

Research Question

Swiss rolls and ham & egg buns are the most common and signature bakery products in Hong Kong bakeries. These products are consumed directly as ready-to-eat food (RTE) without further processing or cooking; a higher chance of retracting from foodborne diseases is anticipated. Therefore, ham & egg buns and Swiss rolls were selected as target items in the current study.

Specific microbial pathogens, including *Salmonella* spp. and *Staphylococcus aureus*, have been detected in similar bakery products recently. Currently, there is a lack of comprehensive surveillance studies on these products which are being sold in Hong Kong. Thus, it is important to monitor and examine the microbial levels by Aerobic colony count (ACC), indicator organism *Escherichia coli*, specific foodborne pathogens *Staphylococcus aureus* and *Salmonella* spp. in the ham & egg buns and Swiss rolls in Hong Kong.

Objective

- To evaluate the microbiological levels of Swiss rolls and ham & egg buns sold from licensed bakeries in 18 districts;
- To provide customers with information about the hygienic levels in the stores to make more informed decisions; and
- To improve local food safety.

Methodology

Food samples (> 100 g) were collected from licensed bakeries in 18 districts of HK. Then, samples were put into an individual sterile bag and placed in an insulation box with ice packs for transportation to the laboratory within 2 hours. ACC, *E. coli* count and *S. aureus* count were determined by 3M Petrifilm™ Plate Methods. The study will involve pour plate methods for the isolation of *Salmonella* spp. and the API 20E test kit for the identification of *Salmonella* spp.



Carmen CHU

Lily TAI

CHU Ka Man Carmen TAI Yuk Lee Lily

BSc (Hons) in Food Science
and Safety

Faculty of Science and
Technology

About the Investigator

I am Carmen CHU. My interest in food testing inspires me to do this project. Dr S. W. CHAN, my supervisor, gave me useful suggestions in the planning and beginning stage. I hope that I can measure the microbiological level of Swiss rolls and become a successful testing technician.

I am Lily TAI. I am interested in food science and gravitate towards food microbiology and testing. Testing foods for the microbiological quality or doing research always fascinate me. My supervisor is Dr S. W. CHAN and I greatly appreciate his valuable and constructive suggestions during the planning and development of this research work.

Effects of Natural Products on Preventing Fat Accumulation in Liver Cells

Abstract

Research Question

Nowadays, non-alcoholic fatty liver disease (NAFLD) is the most prevalent liver disease in the world. Although the reported worldwide prevalence is 25%, the figure may be underestimated as patients are usually clinically silent until they reach the final stage of cirrhosis. Studies showed that patients with NAFLD could have 5-20% of chance to progress to non-alcoholic steatohepatitis; about 10-20% of them would further develop severe fibrosis and eventually 5% would have cirrhosis. NAFLD could also raise the risk of getting complications like diabetes and cardiovascular disease. Although NAFLD has a great health impact on our society, there is no approved medication for treating NAFLD. Currently, researchers are focusing on finding a new medicine that can reduce cellular oxidative stress, so as to reverse body's insulin resistance or diminish hyperlipidemia/fat accumulation in the body. This project serves as a preliminary study to discover a new therapeutic agent for treating NAFLD.

Objective

- To examine the free radical scavenging capacity of traditional Chinese medicine (TCM) herb extracts;
- To investigate the cytotoxicity of different concentrations of TCM herb extracts; and
- To study the effects of the selected concentrations of TCM extracts on alleviation of non-alcoholic fatty livers in vitro.

Methodology

Based on the literature, 5 TCM herbs were selected. The antioxidant potential of the water extract from TCM herbs was assessed by DPPH assay, while its cytotoxicity and effects on NAFLD were evaluated in cell culture by measuring the cell viability and lipid level.

Preliminary Findings

Radix et Rhizoma Rhei and Smilacis Glabrae Rhizoma were found to be the strongest antioxidants that might tackle oxidative stress.



KWOK Tsun Ka

BSc (Hons) in Food Science and Safety

Faculty of Science and Technology

About the Investigator

KWOK Tsun Ka is a year 4 student studying in Food Science and Safety. He is fascinated by life science and functional food. He is also interested in carrying out experiments. He is aspired to work in the food industry to develop health supplements after having further study. Currently, he is under the supervision of Dr CHAN Shun Wan who enables him to have flexibility, practical laboratory skills and independent research training.

Evaluation of the Antioxidant and Heart Protective Activities of Three *Zanthoxylum* Species



LO Chun Kit

BSc (Hons) in Food Science and Safety

Faculty of Science and Technology

Abstract

Research Question

According to the World Health Organization and other research data, it is estimated that half of the world's cardiovascular burdens occur in Asia. Studies have proven that antioxidant can reduce the level of reactive oxygen species (H_2O_2) and the risk of heart failure. Unfortunately, long-term ingestion of synthetic antioxidants (BHA and BHT) is believed to possess toxicity in vivo. Meanwhile, three *Zanthoxylum* species (*Z. armatum*, *Z. piperitum*, and *Z. bungeanum*) were reported to be important medicinal plants and were used as folk medicine to treat diseases in Pakistan, Japan and China respectively. These *Zanthoxylum* species are highly and commonly used as food additives in dishes. As proven strong antioxidants, the *Zanthoxylum* species are believed to be common and natural sources to prevent cardiovascular diseases. To prove that the *Zanthoxylum* species extract can act as an alternative to synthetic antioxidants, this project aims to compare the antioxidants and heart protective activities of the *Zanthoxylum* species.

Objective

This study is to evaluate the free radical scavenging and reducing power, and the heart protective abilities of three *Zanthoxylum* species. In addition, it aims to provide the foundation for the development of new heart-protecting supplements by using the *Zanthoxylum* species.

Methodology

DPPH radical scavenging and Folin-Ciocalteu assay were applied to analyze the free radical scavenging and reducing power. The H9C2 cell line was developed to evaluate the heart protective abilities of the *Zanthoxylum* species in this study.

Preliminary Findings

Preliminary results showed that *Z. piperitum* water extract exhibited the strongest free radical scavenging ability among three *Zanthoxylum* species.

About the Investigator

I am Andy LO. I am interested in product development and food nutrition; both inspire me to start the project. Dr CHAN Shun Wan, my supervisor, gave me useful ideas for the project. I hope I can generate new products or recipes which are safe and beneficial to public health. As regards my career goal, I want to become a R&D food technologist who is responsible for creating new products and launching them successfully on the market.

Prevalence of *Salmonella* spp. in Retail Chickens and Antimicrobial Susceptibility of *Salmonella* spp. in Hong Kong



WONG Chi Lui Rose

BSc (Hons) in Food Science and Safety

Faculty of Science and Technology

Abstract

Research Question

Infections caused by *Salmonella* spp. are of a significant public health concern. *Salmonella* spp. is commonly found in eggs, pork, beef, and poultry. The consumption of contaminated chicken products has contributed to 48% of *Salmonella* foodborne illnesses worldwide. Antibiotics are necessary for treatment of invasive *Salmonella* infections. In the last decade, the indiscriminate use of antibiotics in humans and animals resulted in the emergence of resistant isolates and drug efficacy consequently attenuated. In Hong Kong, meat products are sold in wet markets and supermarkets. The hygiene and manner of handling food between these two settings are different. Currently, studies describing the prevalence and antimicrobial susceptibility of *Salmonella* from chicken products being sold in these settings in the territory are lacking. A surveillance study on this matter could provide valuable information for consumers and retailers.

Objective

The main purpose of the current study is to evaluate and compare the prevalence of *Salmonella* spp. in refrigerated chickens obtained from supermarkets and wet markets respectively in eight districts of Hong Kong. Antimicrobial susceptibility of recovered *Salmonella* spp. will also be determined.

Methodology

Prevalence of *Salmonella* in chicken samples collected from various supermarkets and wet markets in the eight districts will be determined by standard isolation method and confirmed by Polymerase Chain Reaction. Antimicrobial susceptibility test on ten drugs will be performed by Disk diffusion method to evaluate the resistance profiles of *Salmonella* spp.

Preliminary Findings

Currently 12 refrigerated chicken leg samples were collected from two districts. Two samples were suspected to contain *Salmonella*. Further isolation and confirmation are underway.

About the Investigator

As a student of Food Science and Safety, I am interested in food microbiology and this project provides me an opportunity to perform scientific research in this area. My long-term goal is to further equip myself for research postgraduate study and extend my research to different areas of microbiology. Dr Marcus WONG, my supervisor, gave me useful advice to guide me through the project.

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* Shortlisted for poster presentation

