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International Teaching Aid  
**Competition 2023**

Reconnoitering Innovative Ideas in Postnormal Times

**iTAC**

**2023**

**iTAC 2023**  
**INTERNATIONAL TEACHING AID COMPETITION**  
**E-PROCEEDINGS**

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- |      |   |     |
|------|---|-----|
| 125. | <p><b>LIABILITIES BOOKLET</b><br/><i>Rosthasya Luhong Mark, Hanis Maisarah Binti Awang Norhassanal, Nurul Fatehah Binti Abdullah, Azhana Othman</i></p>   | 814 |
| 126. | <p><b>THE LORONG: TRANSFORMING GESTURE AND STRUCTURE IN A SHAPESHIFTING STUDENT RECREATION ALLEY</b><br/><i>Juliza Mohamad, Nik Nurul Hana Hanafi, Nor Hafizah Anuar. Muhammad Firdaus Abu, Mohammad Amirul Shakeer Alias, Ahmad Baihaqi Saiful Bahri</i></p> | 819 |
| 127. | <p><b>FUN_G SPINNER 2.0: INOVASI UNTUK MENAMBAH BAIK PEMBELAJARAN DALAM MENENTUKAN KELAS SEBATIAN ORGANIK</b><br/><i>Wan Nor Izana Wan Mohammad, Norul Safarinie Abdullah, Khairul Nizam Md. Dauad, Ashar Asrul Ros, Ahmad Nasir Mohd Daud</i></p>            | 826 |
| 128. | <p><b>TRACK-YA : TRACKER BAND FOR UMRAH AND HAJJ TRAVELERS</b><br/><i>Alyssa Sofia binti Zulkharnain, Alyssa Sabrina binti Zulkharnain, Nurunnajwa binti Mohd Tajuddin, Aina Afiqah binti Fadillah, Mazlina Mahdzar</i></p>                                   | 840 |
| 129. | <p><b>THRIFTY PLANNER</b><br/><i>Nurul Fatihah Binti Effendy, Nur Saadah Binti Mohd Aris, Sarah Najwa Binti Md Amir, Seri Aleeya Binti Abdullah Suhaimi, Fatin Fatihah Binti Ghazali, Siti Nurulhuda Binti Ibrahim</i></p>                                    | 845 |
| 130. | <p><b>TEA WO SSO</b><br/><i>Gan Fie Chuen , Ummi Kalthum Mansor, Asniati Sabil, Amal Hayati Jamali</i></p>  | 851 |
| 131. | <p><b>ACTIVE LEARNING STRATEGIES USING PICTAV FOR OCCUPATIONAL THERAPY STUDENTS</b><br/><i>Nur Sakinah Baharudin, Siti Salwa Talib, Norsyiqina Shamsudin, Muhammad Radhi Rahimi Abu Bakar</i></p>   | 858 |
| 132. | <p><b>PENNYWISE</b><br/><i>Muhammad Fadlullah Bin MD Asri, Muhammad Hakim Bin Manaf, Muhammad Syarifuddin Zaini Bin Zahirudin, Azmal Rizal Akmal Bin Kamarolzaman, Nordianah binti Jusoh @ Hussain</i></p>  | 864 |
| 133. | <p><b>ECO-WATERCOLOUR</b><br/><i>Nur Adriyana Binti Azrinizam, Irsalina Binti Abd Kahlid, Aida Alya Binti Azizi</i></p>   | 874 |
| 134. | <p><b>S PLUS-MATH TILES</b><br/><i>Grace Lau Chui Ting, Tang Howe Eng, Lee Siaw Li, Hazfina Mohamed Idris</i></p>   | 876 |

## **PREFACE**

iTAC or International Teaching Aid Competition 2023 was a venue for academicians, researchers, industries, junior and young inventors to showcase their innovative ideas not only in the teaching and learning sphere but also in other numerous disciplines of study. This competition was organised by the Special Interest Group, Public Interest Centre of Excellence (SIG PICE) UiTM Kedah Branch, Malaysia. Its main aim was to promote the production of innovative ideas among academicians, students and also the public at large.

In accordance with the theme "Reconnoitering Innovative Ideas in Post-normal Times", the development of novel ideas from the perspectives of interdisciplinary innovations is more compelling today, especially in the post-covid 19 times. Post-pandemic initiatives are the most relevant in the current world to adapt to new ways of doing things and all these surely require networking and collaboration. Rising to the occasion, iTAC 2023 has managed to attract more than 267 participations for all categories. The staggering number of submissions has proven the relevance of this competition to the academic world and beyond in urging the culture of innovating ideas.

iTAC 2023 committee would like to thank all creative participants for showcasing their innovative ideas with us. As expected in any competition, there will be those who win and those who lose. Congratulations to all the award recipients (Diamond, Gold, Silver and Bronze) for their winning entries. Those who did not make the cut this year can always improve and join us again later.

It is hoped that iTAC 2023 has been a worthy platform for all participating innovators who have shown ingenious efforts in their products and ideas. This compilation of extended abstracts published as iTAC 2023 E-Proceedings contains insights into what current researchers, both experienced and novice, find important and relevant in the post-normal times.

Best regards,

**iTAC 2023 Committee**  
**Special Interest Group, Public Interest Centre of Excellence (SIG PICE)**  
**UiTM Kedah Branch**  
**Malaysia**



## **PENNYWISE**

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### **ABSTRACT**

Pennywise is a user-friendly mobile application developed to address financial challenges commonly faced by students and individuals. Students often struggle to manage their finances effectively due to various factors. Firstly, students cannot value whether the food is worth the price. Secondly, students do not have a financial plan. Thirdly, lack of financial literacy, such as the fact that students do not have the ability to manage their finances. Finally, students struggle to control buying unnecessary things. Pennywise aims to alleviate these challenges by empowering students to make informed financial decisions and develop responsible spending habits. The primary objective of the app is to simplify financial management by allowing students to track their expenses effectively. By offering budgeting tools, real-time spending insights, and transaction categorization, Pennywise enables students to evaluate their purchases, plan their expenditures, and make informed financial choices. One of the notable features of Pennywise is its ability to recommend the best stores based on users' budgets. By considering affordability, the app helps students find reasonably priced options and make cost-effective purchases. Additionally, Pennywise provides users with budgeting tools, including

expense tracking, goal setting, and savings monitoring. These features empower students to allocate their funds wisely, avoid unnecessary expenses, and build healthy financial habits. The benefits to society of Pennywise are significant. By promoting financial literacy and responsible spending, the app contributes to the overall financial well-being of individuals and society. It reduces financial stress among students and encourages long-term savings. Moreover, Pennywise has commercialization potential through data analytics and insights. Analyzing users' spending patterns can offer valuable market insights, while potential partnerships with affiliates can provide users with exclusive deals and discounts.

**Keywords:** Pennywise, budgeting tool, financial, expenditure.

## **BACKGROUND**

Pennywise, a user-friendly mobile application, stands out from other apps by offering a diverse range of interfaces and features aimed at solving the financial challenges faced by students. It is specifically designed to address the unique problems students encounter. The app's user-friendly interface and features promote educated decision-making, wise spending, and financial literacy. It gives real-time spending data and budgeting tools to assist students in tracking their expenses, evaluating their purchases, and efficiently planning their expenditures. This app also has commercialization potential through data analytics and partnerships, offering valuable market insights and exclusive deals to users.

## **PROBLEM STATEMENT**

Students faced a big problem in dealing with their finances and that significantly impacted their ability to manage their finances properly. The problem to highlight is students find it difficult to estimate the value of food in relation to its cost, lack a budgeting plan, have limited financial literacy, and experience unexpected expenses like medical expenses and laptop problems that have a big impact on their financial situation. These challenges make it difficult for students to effectively handle their finances, which can result in stress and long-term effects that affect their studying. In order to improve their overall financial well-being, a solution is required to build an app that addresses these problems and provides students with the knowledge and skills to make wise financial decisions, use responsible spending habits, and deal with unexpected costs.

## **OBJECTIVE**

The objective of this application is to make it easier for users to manage finances in terms of expenses, the budget that they have to buy items that are needed at reasonable prices. Moreover, this application also provides convenience to users for what they need to spend over a specific period of time and they can plan their expenses frugally and without making mistakes by spending money on things that do not benefit them. Furthermore, this application is for users to save money and plan their daily expenses which includes providing financial convenience for them in the future.

## **NOVELTY**

The novelty of this application is the user-friendly interface, budget focus approach and extensive vendor options. Firstly, the user-friendly interface eases users to navigate the app, track their expenses, and make informed purchasing decisions. The user-friendly design application ensures a seamless and engaging experience for students. Next, this application comes with a budgeting rule which helps to recommend users to spend their money wisely according to their budget. Smith (2023), budgeting plans come in various forms that prioritizes saving. In this application, we apply the 50/30/20 rule method. Lastly, this application provides various vendors and shops offering users a wide range of choices which enhance the shopping process and convenience for the users.

## **FEEDBACK FROM COMMUNITY**

This research has collected feedback from students through a survey. The survey that was conducted consisted of 41 respondents in total. According to the survey, most of the respondents are degree students studying in university between the ages of 21 to 25 years old and earn more than RM1000 monthly from their parents.

Most of the respondents have never experienced other financial applications before and they agree that most of them have difficulties in financial situations. The respondents agree that an invention of a financial application that provides financial recommendations based on their spending habits can help students to manage their finances. Moreover, the special features in our application which is budgeting is the most chosen answer by the respondents through the survey.

## **COMMERCIALIZATION POTENTIALS**

Pennywise has a considerable amount of business potential because it caters to those who are mindful of their financial situation, notably students who place a high priority on sound

financial management and look for the best value for the products they buy. The app has a primary focus on the student population, including undergraduates and postgraduates, and it handles various financial responsibilities that students have, such as cost of tuition, cost of housing, cost of books, and day-to-day living expenses. Pennywise touts itself as a vital tool for students who want to maximize their financial resources and make informed spending decisions by providing a comprehensive platform for efficient money management. Pennywise is a product for which a copyright application has been submitted to the Business Innovation and Technology Commercialization Centre (BITCOM): IP/CR/05186.

### **BENEFIT TO COMMUNITY**

The personal finance app is a mobile app that allows users to track their income, expenditures, investment, and banking (Singh,2022). Pennywise has many positive social effects. First, it simplifies student spending by giving students an accessible hub that helps them to make educated product choices, cut back on wasteful spending, and stretch their budgets as far as possible. Second, the app encourages students to become financially literate by providing them with an access to a variety of resources and information that can help them learn how to manage their money, stick to a budget, and appreciate the value of fiscal responsibility. Third, Pennywise promotes increased savings by providing features like goal setting, spending tracking, and budgeting tools, which allow students to allocate monies towards saving goals and construct long-term financial security. Finally, the app helps students feel less financial strain by giving them the resources and support they need to take charge of their personal finances and achieve more stability and security. Pennywise has a good social impact because it encourages young adults to make prudent purchases, improves their financial literacy, helps them start saving early, and reduces their financial stress.

### **CONCLUSION**

Pennywise is a simple mobile app that helps young adults and others with money issues. Pennywise gives customers budgeting tools, real-time spending data, and transaction categorization to make smart financial decisions and create good spending habits. The app's budget-based store recommendations encourage cheap purchases. Pennywise encourages long-term savings, financial awareness, and reducing student stress.

Pennywise is unique in its user-friendly design, budget-focused strategy, and numerous vendor alternatives. The app's design makes it easy to use, and the budgeting guideline helps users spend money sensibly. The variety of vendors and shops makes shopping easier.

A survey found that students struggle to manage their finances and would benefit from an app

like Pennywise, which makes financial recommendations based on spending habits. The survey results suggest Pennywise could help students manage their finances.

Pennywise has commercial potential, especially among financially responsible students. Pennywise helps students manage tuition, housing, books, and daily living expenditures to maximise financial resources and make smart spending decisions.

The community benefits greatly. Pennywise simplifies sensible spending, increases savings, and minimises financial stress. Pennywise improves society by enabling people to manage their finances and achieve stability.

In essence, Pennywise helps students and individuals to make smart financial decisions, develop responsible spending habits, and manage unexpected bills. Pennywise could revolutionise money management and improve society with its user-friendly interface, budget-focused strategy, and wide vendor possibilities.

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