



UNIVERSITI  
TEKNOLOGI  
MARA



International Teaching Aid  
**Competition 2023**

Reconnoitering Innovative Ideas in Postnormal Times

**iTAC**

**2023**

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

Copyright © 2023 is held by the owner/authors(s). These papers are published in their original version without editing the content.

The views, opinions and technical recommendations expressed by the contributors are entirely their own and do not necessarily reflect the views of the editors, the Faculty or the University.

Copy Editors: *Syazliiyati Ibrahim, Azni Syafena Andin Salamat, Berlian Nur Morat (Dr.), Najah Mokhtar, Noor 'Izzati Ahmad Shafiai, Muhamad Khairul Anuar Bin Zulkepli (Dr.)*

Cover Design : *Asrol Hasan*

Layout : *Nurina Anis Mohd Zamri*

eISBN : 978-967-2948-51-3

Published by : Universiti Teknologi MARA Cawangan Kedah,  
08400 Merbok,  
Kedah,  
Malaysia.

*Ain Binti Binti Abd Rahman*

- |     |   |            |
|-----|---|------------|
| 10. | <b>THE EVOLUTION OF ANDROID STUDIO AS A 21ST TEACHING TOOL IN SUPPLEMENTING ENGLISH PRIMARY SCHOOL TEXTBOOK</b>   | <b>79</b>  |
|     | <i>Aini Faridah Azizul Hassan, Aisa Arleen Anuar, Anis Aleeya Hashim</i>  |            |
| 11. | <b>LA RIBA BOARD GAME</b>   | <b>86</b>  |
|     | <i>Mohd Shafiz Saharan, Mohd Fazil Jamaludin, Khairul Azfar Adzahar, Mohd Zulkhairi Abd Hamid, Nurdiyana Nazihah Zainal</i>                                   |            |
| 12. | <b>PERMAINAN PAPAN KIMIA CHEMIBBLE</b>  | <b>92</b>  |
|     | <i>Noorsyahirah binti Mohd Noor</i>   |            |
| 13. | <b>A GUIDELINE: IMPLEMENTATION OF THE FLIPPED CLASSROOM TEACHING APPROACH IN LEARNING STATISTICS</b>  | <b>98</b>  |
|     | <i>Siti Hasma Hajar Binti Mat Zin</i>   |            |
| 14. | <b>REDEFINE READING COMPREHENSION WITH TARSIA: AN INNOVATION</b>  | <b>105</b> |
|     | <i>Noorfatin Zakaria, Mohamad Noh Mustafah Hussain, Norshamshizar Abdul Jalil, Melor Md Yunus, Harwati Hashim</i>   |            |
| 15. | <b>COV-19 BV MODEL</b>  | <b>111</b> |
|     | <i>Intan Nur Anatasha Binti Kamal Ariffin, Nabihah Safiyah Binti Mohd Azizan, Che Norhalila Binti Che Mohamed</i>   |            |
| 16. | <b>IDENTIFICATION OF FACEBOOK FEATURES SUPPORTING INTRINSIC MOTIVATIONS OF SENIOR ENTREPRENEURS</b>   | <b>116</b> |
|     | <i>Marlina Muhamad, Mohd Fazil Jamaludin, Norafiza Mohd Hardi, Fariza Hanis Abd Razak, Haryani Haron</i>  |            |
| 17. | <b>PV2P: PROGRAM VISUALIZATION AND PAIR PROGRAMMING TO IMPROVE STUDENTS UNDERSTANDING OF PYTHON PROGRAMMING</b>   | <b>122</b> |
|     | <i>Syahrul Affendi Bin Abdul Rahman</i>   |            |
| 18. | <b>FROM A PASSIVE STATE, INTERACTIVE LEARNING ALLOWS LEARNERS TO LINK THEIR COMMUNICATION MORE: A GROUP OF LEARNERS FROM UNIVERSITIES IN THE EPIDEMIC ERA</b> | <b>130</b> |
|     | <i>Farrah Rina Mohd Roshdi, Mohamad Farid Misnan</i>  |            |
| 19. | <b>EDIUSY: THE SOLUTION OF STUDENT DISENGAGEMENT</b>  | <b>135</b> |

## **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**

## **EDIUSY: THE SOLUTION OF STUDENT DISENGAGEMENT**

Nur Athirah Sumardi

Faculty of Business and Management, Universiti Teknologi MARA Selangor Branch, Puncak Alam, Selangor, Malaysia  
[athirahsumardi@uitm.edu.my](mailto:athirahsumardi@uitm.edu.my)

Mazuin Mat Halif

Faculty of Business and Management, Universiti Teknologi MARA Selangor Branch, Puncak Alam, Selangor, Malaysia  
[mazui208@uitm.edu.my](mailto:mazui208@uitm.edu.my)

Narehan Hassan

Faculty of Business and Management, Universiti Teknologi MARA Selangor Branch, Puncak Alam, Selangor, Malaysia  
[drnarehan@uitm.edu.my](mailto:drnarehan@uitm.edu.my)

Natasha Dzulkalnine

Faculty of Business and Management, Universiti Teknologi MARA Selangor Branch, Puncak Alam, Selangor, Malaysia  
[natashad@uitm.edu.my](mailto:natashad@uitm.edu.my)

### **ABSTRACT**

The past two years, Covid-19 has stroked the world with immediate needs for educators to perform duties and responsibilities from home via the internet and for students to engage in online classes, emphasizing the importance of individuals' autonomy, efficacy and empowerment. Hence, the concern on student engagement towards lessons has garnered the interest of every educational institution in Malaysia, boiling down to the identification of the solution through EDIUSY. It is a mobile application that was inspired by the VARK learning style model which highlighted the four learning styles of Visual, Auditory, Read or Write and Kinesthetic. This application will benefit its end users specifically tertiary educational institution students, trainers, instructors, or lecturers. Notably, it will enable the students to have comprehensive access to their learning materials, personalized based on their chosen most preferred learning style. Nonetheless, the application is currently focusing on only three learning styles except for kinesthetic as it temporarily concentrates on social science students who are known to be studying theoretically. Later, this will be further expanded to kinesthetic style for technical and pure sciences students who will mostly use hands-on learning materials. Besides, this application also enables personalized sharing of information and materials which will engage and empower the students to be extensively responsible for their studies. With minimal incurred cost, students will feel contented, motivated, happier and able to engage in the classroom without any difficulty. Subsequently, this will create positive student engagement in the teaching and learning environment, which is a win-win situation for both students and educators.

**Keywords:** Learning Styles, VARK Model, Visual, Auditory, Read or Write, Student Engagement

## **PROBLEM STATEMENT**

Student engagement can be referred to as the student's investment or commitment demonstrated in the learning environment that is categorized into cognitive, emotional, and behavioural dimensions. Cognitive engagement can be defined as the internal efforts by students to understand and retain curricula through engagement in academics, while emotional engagement is the positive or negative reaction a student experiences when interacting with an educator, occupying a learning environment, or receiving course curricula. Behavioural engagement is the actions a student takes during learning that reflect participation and compliance. Student learning engagement can be improved via effective online instruction (Bailey & Lee, 2020) which by offering adequate learning resources can highlight the possible obstacles to student engagement (Organisation for Economic Co-operation and Development (OECD), 2020).

Through student engagement, students will be involved and empowered in shaping their learning experience processes (Baron & Corbin, 2012). Great Schools Partnership defines student engagement as “the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught”. In fact, it was suggested for the government focus on keeping students engaged to avoid hysteresis (the long-term effect of unemployment on a worker's ability to find a job) in education (Organisation for Economic Co-operation and Development (OECD), 2020).

During the pandemic era, more students have more potential for disengagement during class, especially during online classes. Students' disengagement could be due to students feeling stressed and demotivated. This situation was not only meant for the students, but it could occur among the educators as well who had feel hopeless to encourage their students in the learning process. Learning difficulties and lack of engagement in education may be the main factors of student disengagement. It brought up the idea whether the disengagement of students was due to the lack of empowerment or an uninterested learning process. Therefore, EDIUSY was made to cater to the problems of students' disengagement through a selection of modes of learning either Visual, Auditory, and Read or Write. Soon, one more learning style which is Kinesthetic will be introduced which focuses more on technical and pure science students who mostly used hands-on learning materials.

## **PRODUCT DESCRIPTION**



**Figure 1.** EDIUSY Application

**EDIUSY**, the acronym from Education Easy, is a mobile application that was inspired by the VARK learning style model which highlighted the four learning styles of Visual, Auditory, Read or Write, and Kinesthetic. This application is intended to provide personalized access to learning materials for tertiary educational institution students based on their preferred learning styles. For the time being, the application is only focusing on three learning styles, excluding the kinesthetic as it is temporarily emphasized for social science students who will seldom use kinesthetic learning styles. This application will benefit its end users, specifically tertiary educational institution students, trainers, instructors, or lecturers. In detail, it will enable educators to share their teaching materials with the students, enabling them to have access to their learning materials, personalized based on their preferred learning style. Though there are systems that have been implemented in educational institutions, none of them has offered the a customized or personalized services.

#### Product Objectives and Potential Impact

This product aims to emphasize the identity of students as a stakeholder in the learning environment, making sure their participation in the learning activities. This product also intends to highlight the importance of students' autonomy, efficacy, and empowerment. The idea behind the creation of this product is based on the personal experience of an educator which is to improve students' engagement during classes, especially for online classes. Three types of learning styles introduced in this product are:

**Visual Learning Style** which information comes in best through your eyes, from charts, graphs, flow charts, maps, labeled diagrams, and others.

**Read / Write Learning Style** through information comes in best through your eyes, but more towards information displayed as words rather than figures. For instance, manuals, reports,

essays etc.

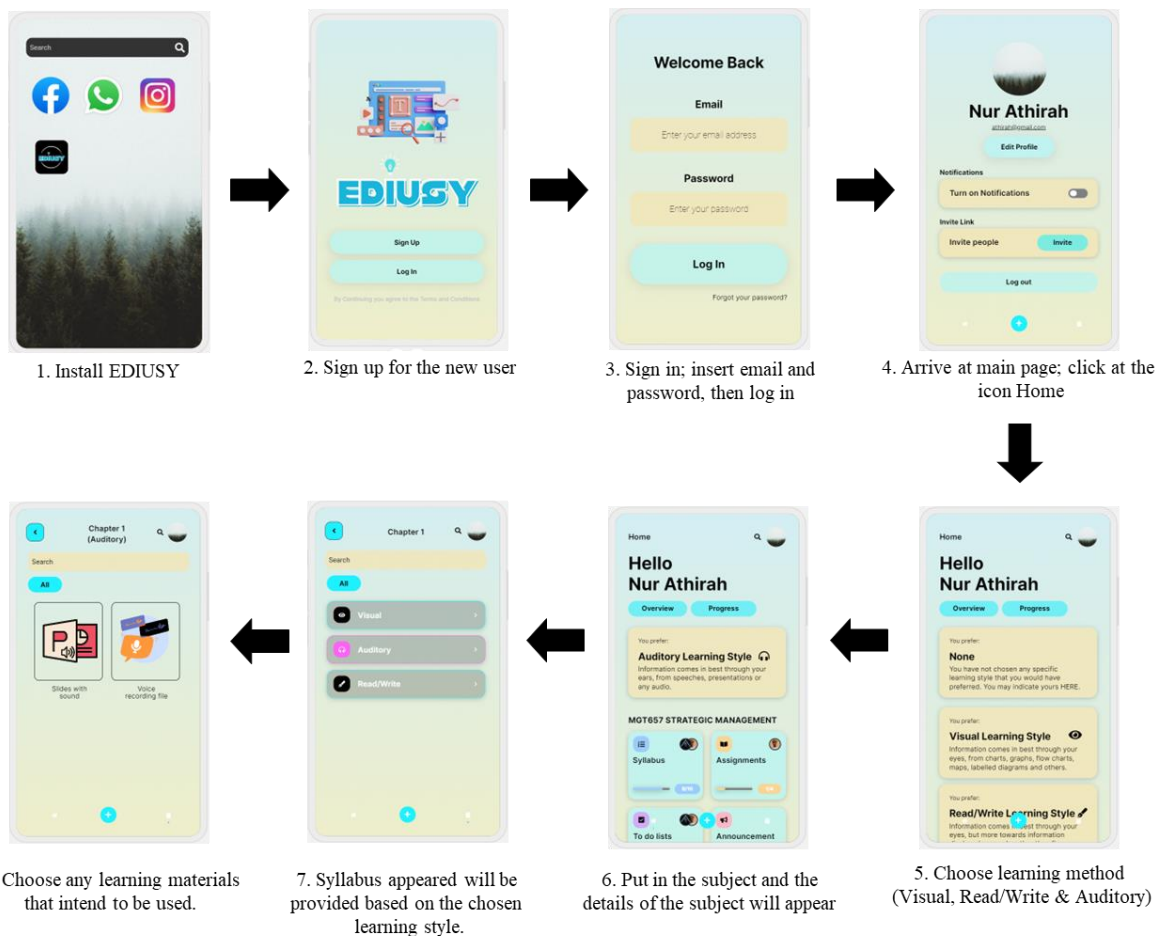
**Auditory Learning Style** is information that comes in best through your ears, from speeches, presentations, or any audio.

Moreover, the objective of this product is to enhance students' creativity to choose their own preferred learning style. It may help the students to be more focused and be attentive during the classes. It is a win-win situation for both educators and students. The educators do not have to continuously provide the students with learning materials as this application highlighted its one-shot process, which makes the lives of educators easier while empowering the students to act autonomously.

In addition, there are three (3) main impacts of EDIUSY which are well-being related, cost related, and function related. In terms of the well-being benefit, this application will make students happier, feel appreciated, and motivated while at the same time, be able to engage in the classroom as they feel empowered with their learning materials. Next, in terms of cost-related benefit, it is affordable as it will only charge a minimal cost for administrative purposes as well as cost on internet usage which will be incurred when the users need to download certain files. Finally, this application has also highlighted the benefits of convenience to use as it can be used both offline and online. Hence, it is easily accessible, anytime and anywhere the users want. Besides, this product supports the concept of environment friendly in which the provision of learning materials is all being digitalized which does not involve any papers.

Product Usage





**Figure 2.** Steps to use EDIUSY

### Step 1: Install EDIUSY

This application can be installed in Android phones via Google Play Store or IOS phones via App Store

### Step 2: Sign up

For new users, you need to sign up first before logging in while the existing user can directly log in to the account page. You need to insert personal details when you sign up for a new account.

### Step 3: Log In

Log in EDIUSY using the registered email and password.

### Step 4: Main Page

You will arrive at your profile page and click home to go to your home page.

**Step 5: Choose Learning Method**

You will see that you have not chosen a specific learning style. Read the description and pick one style that you prefer. Users may choose either Visual, Read / Write, or Auditory learning styles. Your preferred learning style will then be saved.

**Step 6: Key in the Subject Name or Code**

At the search button, you can key in your subject name or code and four components of ‘syllabus, assignments, to do list and announcement’ for the subject will appear.

**Step 7: Choose Syllabus**

You may choose ‘syllabus’ and pick any chapter that you intend to use.

**Step 8: Select Any Learning Materials**

You may select any learning materials in ‘chapter’ that you have chosen in Step 7.

**Product Recognition and Awards**

EDIUSY was developed based on the findings found in the article entitled ‘Moderating Effects of Student Motivation on the Relationship between Learning Styles and Student Engagement’ which was published by some of the inventors (Halif et al., 2020). Besides, the product was awarded with Gold Medal in International Borneo Innovation, Exhibition & Competition (IBIEC) 2022. Currently, the inventors are in the process of applying for copyright through Business Innovation & Technology Commercialization Centre (BITCOM) UiTM where the application was submitted for approval.

**REFERENCES**

- Bailey, D. R., & Lee, A. R. (2020). Learning from experience in the midst of COVID-19: Benefits, challenges, and strategies in online teaching. *Computer-Assisted Language Learning Electronic Journal*, 21(2), 178-198.
- Baron, P., & Corbin, L. (2012, 2012/12/01). Student engagement: rhetoric and reality. *Higher Education Research & Development*, 31(6), 759-772. <https://doi.org/10.1080/07294360.2012.655711>
- Halif, M. M., Hassan, N., Sumardi, N. A., Omar, A. S., Ali, S., Aziz, R. A., Majid, A. A., & Salleh, N. F. (2020). Moderating effects of student motivation on the relationship between learning styles and student engagement. *Asian Journal of University Education*, 16(2), 93-103.

Organisation for Economic Co-operation and Development (OECD). (2020). *Education and COVID-19: Focusing on the long-term impact of school closures*. <https://www.oecd.org/coronavirus/policy-responses/education-and-covid-19-focusing-on-the-long-term-impact-of-school-closures-2cea926e/>



e-proceedings

International Teaching Aid  
**Competition 2023**

Reconnoitering Innovative Ideas in Postnormal Times

**iTAC** **2023**

e ISBN 978-967-2948-51-3



9 789672 948513