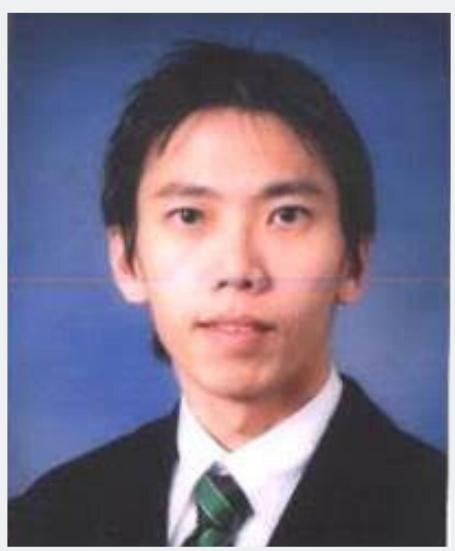


Reaching Out to the Community through Applied Learning Programme (ALP)



Neo Peck Wee Joel

President's Award for Teachers
(PAT) 2019 Nominee

About Me

Subject Head/Mathematics

PEI HWA SECONDARY SCHOOL



Filming of Time Machine featuring panic button with Vivian Lai in 2018. The panic button was created for the elderly, allowing them to alert their caregiver(s) immediately during an emergency.

ABOUT THE IDEA

The ALP Robotics and Programming provided opportunities for students to learn how to apply coding skills to solve real-world problems while adopting key thinking processes to design practical and innovative solutions.

HOW TO DO IT

The learning approach adopted by the Programme is exposing students to coding, making and thinking frameworks, while allowing students to apply these skills and exhibiting students' innovations in various showcasing platforms.

This Programme is implemented through the structured Project Work (PW) Curriculum in which students are equipped with 21st Century Skills such as problematising, researching, customising, hypothesising and prototyping – all to devise innovative solutions that could offer the user a value-added product to solve real-world issues. This curriculum is facilitated by a group of PW mentors and PW teachers progressively for one period every study week, and the learning is ascertained by an assessment system anchored on project presentations and showcasing of final product, using a shared rubric.

Students solve real-world issues by identifying problems in the community. While secondary 1 students focus on school issues, students from other levels venture out further, identifying problems faced by the society at large. One example of a problem identified by secondary 1 students is the need for more recycling efforts. They addressed this problem by inventing an electronic waste basket which measures the number of recyclable materials it collects.

Multiple external projects and showcasing platforms are then leveraged to provide students in the Programme with exposure and various skills application opportunities. Examples of these platforms include Science Centre's Maker Extravaganza, Edutech Asia Exhibition, IMDA's SG:Digital Wonderland, MOE Innovation Programme and Cluster's Hackathon.

IMPACT

The school has achieved its goal of impacting students with the knowledge of coding and innovating for social good. Students have shown their accomplishment by designing practical, meaningful and innovative solutions that could help to solve society's problems and communities' concerns such as the Panic Button devised by a group of girls. The girls designed and created a wearable device that could send out signals to nearby medical facilities in the event that an elderly slips or falls while living alone.

At a larger scale, the Programme has contributed to the development of coding literacy among the students and the emergence of a maker culture in school.



Students sharing about the assistive device they had invented with Micro-bit CEO in 2018. The assistive device is for elderly undergoing rehabilitative care. It acts as a monitoring device to monitor their strength and balance.



Students sharing about their Panic Button project with Dr Vivian Balakrishnan in 2017

Use of Historical Simulations to teach Conceptual Understanding in the History Classroom

ABOUT THE IDEA

A historical simulation is a dynamic reconstruction or representation of the past. It allows the students to be historical actors, recreating historical events and experiencing actual historical outcomes. It helps students understand why certain decisions were made at that time.

The aim of the use of Historical Simulations is to promote higher engagement level among students in the classroom. It is also used to help teachers move away from teacher-fronted teaching and rote learning to student-centric collaborative learning. In addition, the focus is shifted from teaching history content and exam focused lessons to helping students gain a deeper understanding of historical concepts, like Causations, Empathy and Significance.

HOW TO DO IT

The students were involved in a Historical Simulation aligned with the chapters in the History textbooks, which took about fifteen minutes to complete. The Historical Simulations were then used to help students understand important historical concepts pertaining to the particular chapters. For example, in a simulation on the Rise of Militarism in Japan, the students explored the concept of Causations and Significance through the simulation and post simulation activities to understand the complexity and interconnectedness of the different factors at play. The student role cards can be found in the next two pages..

IMPACT

A History Simulations NLC has been formed since 2017 to design, create and promote the use of Historical Simulations in schools. Sharing sessions and workshops had also been conducted since 2017 at National, Zonal and Cluster levels for History Teachers to use Historical Simulations in their respective schools. Many teachers who came to the workshops found the simulations useful and tried them out in their classrooms.

Qualitative data collected from the students showed that they responded positively to the use of Historical Simulations in the classroom.



Chew Ee

*President's Award for Teachers
(PAT) 2019 Nominee*

About Me

Lead Teacher/History

**ST. ANDREW'S
SECONDARY SCHOOL**

ROLE CARDS

Imperial Japanese Navy

- You represent the Imperial Japanese Navy. The Japanese navy is the 3rd most powerful navy in the world. The Japanese navy was also responsible for Japan's victory over Russia in the Russo-Japanese war in 1905. It was the first time an Asian nation managed to defeat a Western nation and the achievement has not been repeated since. You strongly believe that Japan's destiny is to free Asia from the Western powers. As a result, war with the Western powers is inevitable, especially with the USA.



Your Objectives

- Ensure the survival of Japan.
- Destroy democracy.
- Expand aggressively and **increase** Japan's territories.

Imperial Japanese Army

- You represent the Imperial Japanese Army. The Japanese army had already fought two wars, with China (1895) and Russia (1905). As a result of the wars, Japan had gained control of Korea and Formosa. The Japanese army also claims that it has never been defeated by a foreign power for 2600 years. You strongly believe that it is Japan's destiny to be the dominant power in Asia through conquest and expansion.



Your Objectives

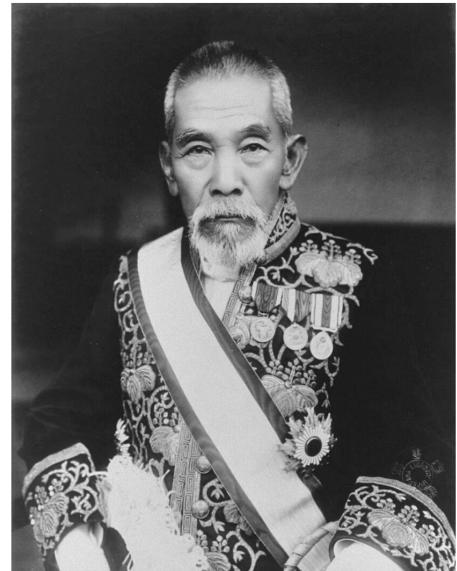
- Ensure the survival of Japan.
- Destroy democracy.
- Expand aggressively and **increase** Japan's territories.

Seiyukai Party

- You represent the Seiyukai Party. Your party is one of the most powerful democratic parties in Japan. You believe that the Japanese people should be allowed to have a greater say in Japan's future. You oppose militarism and reckless territorial expansion. Japan should find a way to work with other countries to expand peacefully.

Your Objectives

- Ensure the survival of Japan.
- Protect democracy.
- Cooperate with other countries and expand Japan's territories peacefully.



- Tsuyoshi Inukai, leader of the Seiyukai Party
- Prime Minister of Japan 1931 - 1932

Minseito Party

- You represent the Minseito Party. Your party is one of the most powerful democratic parties in Japan. You believe in equality between rich and poor, international cooperation, and protection of personal freedoms. You oppose militarism and believe that Japan should work with other countries to maintain peace in Asia.

Your Objectives

- Ensure the survival of Japan.
- Protect democracy.
- Cooperate with other countries and expand Japan's territories peacefully.



- Osachi Hamaguchi, leader of the Minseito Party
- Prime Minister of Japan 1929 - 1931