

# Project-based Learning – Fall Prevention Exercise Game for the Elderly

*In the project-based learning (PBL) activity, VPET students have to explore, apply and evaluate the use of digital technology in their area of study. The Fall Prevention Exercise Game demonstrates how technology can be applied in health promotion and education. Through the application of a human-centred design thinking approach to work out solutions for the elderly, they are developing the necessary digital competence relating to content creation and application. The initiative also fosters students' professional competence and cultivates a caring and service mind-set to serve the elderly.*

## Main Objectives

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- **Applying digital media and technology in teaching and learning**

Students embrace new technologies relevant for their area of study and acquire digital skills.

- **Practising design thinking skills**

In advancing the active ageing agenda, teaching staff and students co-create digital applications for preventive care for the elderly in an authentic setting.

- **Practising project-based learning for key 21<sup>st</sup> century competencies**

Foster soft skills like teamwork and the ability to work with people from different backgrounds.

- **Engaging industry partners and major stakeholders**

Collaboration with IT professionals, physiotherapists, elderly centres and the nursing community ensures that the project outcome addresses real-life needs.

## Added Benefit of Use in TVET

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- **Developing work-related digital skills**

Through the collection of user requirements, students develop an understanding about the potential of

digital technologies in their professional field and learn to design digital solutions with empathy and pragmatism.

- **Enhancing learning motivation**

The use of digital media and innovative components of the project makes learning more fun and enhances the learning motivation of students.

- **Fostering professional action competence and strengthen human-centric mind-set**

The project focuses on understanding the needs of elderly and promoting health education. Students gain more confidence in communicating with the elderly throughout the project development and develop competencies to bridge the inter-generational gap.

## Getting Started

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- **Step 1: Project team formation**

Students were given a task to work on an open-ended problem. Industry partners were invited to provide professional advice to the working team.

- **Step 2: Define project details and manage learning activities**

Students were asked to talk to the elderly and empathize their needs to define the project details and plan the next steps.

- **Step 3: Engage with industry partners**  
With the input and support of industry partners, students could learn how to apply the theory and knowledge learnt from the classroom and use different types of digital media to design a feasible solution to solve a real-life problem.
- **Step 4: Build the prototype and deploy the application**  
The prototype was developed and deployed in the elderly centres and HealthTech Centre in the campus. Elderly from elderly centres were invited to test the application.
- **Step 5: Build the culture and repeat this form of project-based learning**  
Extend this form of project-based learning exercises to more programmes and modules, encouraging students from various disciplines to further explore the use of innovative technologies that positively impact society.

## Profile of Provider

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The Vocational Training Council (VTC), established in 1982, stands at the forefront of vocational and professional education and training (VPET) in Hong Kong.

As a statutory body, the VTC ensures the skills of the Hong Kong workforce remain relevant and future ready. Its mandate to provide VPET is vital in meeting industry needs, and in fulfilling the aspirations of some 200,000 students across 13 member institutions every year, including 50,000 full-time students.

The VTC provides flexible study pathways from diploma to degree levels, equipping students with professional knowledge and skills in a wide spectrum of professions. Our "think and do" approach cultivates the passions for learning while imparting the necessary skills and know-how for success.

## Contact

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### BIBB International Roadshow 'Digital Media in TVET'

Initiated by the Federal Institute for Vocational Education and Training in Germany (BIBB), the Roadshow aims to show the potential of digital applications and technologies for teaching and learning in Technical Vocational Education and Training to make learning more flexible and enhance the quality and attractiveness of TVET.

The format builds on the German Roadshow 'Digital Media in TVET', which has been successfully implemented and conducted by the Federal Ministry of Education and Research in Germany (BMBF) in cooperation with BIBB since 2016.

More information:  
<https://www.bibb.de/de/105326.php>