i-SPiKE 2023

INTERNATIONAL EXHIBITION & SYMPOSIUM ON PRODUCTIVITY, INNOVATION, KNOWLEDGE & EDUCATION

"Optimizing Innovation in Knowledge, Education and Design"

EXTENDED ABSTRACT

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Assalamualaikum warahmatullahi wabarakatuh,

First and foremost, I would like to express my gratitude to the organizing committee of i-Spike 2023 for their tremendous efforts in bringing this online competition a reality . I must extend my congratulations to the committee for successfully delivering on their promise to make i-Spike 2023 a meaningful event for academics worldwide.

The theme for this event, 'Optimizing Innovation in Knowledge, Education, and Design,' is both timely and highly relevant in today's world, especially at the tertiary level. Innovation plays a central role in our daily lives, offering new solutions for products, processes, and services By adopting a strategic approach to 'Optimizing Innovation in Knowledge, Education, and Design,' we have the potential to enhance support for learners and educators, while also expanding opportunities for learner engagement, interactivity, and access to education.

I am awed by the magnitude and multitude of participants in this competition. I am also confident that all the innovations presented have provided valuable insights into the significance of innovative and advanced teaching materials in promoting sustainable development for the betterment of teaching and learning. Hopefully, this will mark the beginning of a long series of i-Spike events in the future.

It is also my hope that you find i-Spike 2023 to be an excellent platform for learning, sharing, and collaboration. Once again, I want to thank all the committee members of i-Spike 2023 for their hard work in making this event a reality I would also like to extend my congratulations to all the winners, and I hope that each of you will successfully achieve your intended goals through your participation in this competition.

Professor Dr. Roshima Haji Said
RECTOR
UiTM KEDAH BRANCH

WELCOME MESSAGE (i-SPiKE 2023 CHAIR)

We are looking forward to welcoming you to the 3rd International Exhibition & Symposium on Productivity, Innovation, Knowledge, and Education 2023 (i-SPiKE 2023). Your presence here is a clear, crystal-clear testimony to the importance you place on the research and innovation arena. The theme of this year's Innovation is "*Optimizing Innovation in Knowledge, Education, & Design*". We believe that the presentations by the distinguished innovators will contribute immensely to a deeper understanding of the current issues in relation to the theme.

i-SPiKE 2023 offers a platform for nurturing the next generation of innovators and fostering cutting-edge innovations at the crossroads of collaboration, creativity, and enthusiasm. We enthusiastically welcome junior and young inventors from schools and universities, as well as local and foreign academicians and industry professionals, to showcase their innovative products and engage in knowledge sharing. All submissions have been rigorously evaluated by expert juries comprising professionals from both industry and academia.

On behalf of the conference organisers, I would like to extend our sincere thanks for your participation, and we hope you enjoy the event. A special note of appreciation goes out to all the committee members of i-SPiKE 2023; your dedication and hard work are greatly appreciated.

Dr. Junaida Ismail
Chair
3rdInternational Exhibition & Symposium Productivity, Innovation, Knowledge, and Education 2023 (i-SPiKE 2023)

NEW ENTREPRENEURSHIP EDUCATION FRAMEWORK FOR MALAYSIAN SECONDARY SCHOOLS BASED ON DESIGN THINKING, FLIPPED CLASSES, AND THE KORDA METHOD

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ABSTRACT
Malaysian secondary education system tends to prioritise academic subjects and examination results, which may result in an insufficient emphasis on soft skills development, especially entrepreneurial skills. However, it is argued that entrepreneurial skills are essential lifelong skills that can elevate social status, so unemployment after high school or mismatched employment after graduation should be avoided. Therefore, this paper proposes a new framework for an entrepreneurial education module that incorporates design thinking, flipped classrooms, and the Korda method. This framework seeks to instil design thinking skills in entrepreneurship education to reframe students' views and perspectives into realising that entrepreneurship is a part of life. This framework requires holistic intervention from various stakeholders, primarily the private sector, which provides funding and the platform for the practice phase; the government, which must provide policies and funding to facilitate the implementation of this framework; and business leaders, who provide mentorship and expertise. By the end of this module, students should develop a perspective that entrepreneurship is a part of life in which they can identify market needs in every aspect of their lives and have the courage to fulfil those needs immediately after secondary school or after graduation.

Keywords: secondary school, entrepreneurship education, framework, design thinking, flipped classroom

INTRODUCTION

In a world of rapid technological advancements and a dynamic global economy, education must change to prepare future generations for future challenges. Curriculum change is needed more than ever as old educational methods struggle to meet new needs. A new entrepreneurship education framework that meets the growing need for adaptable, forward-thinking people are critical. An entrepreneurship education at secondary schools in Malaysia which aims to teach students problem-solving, critical thinking, creativity, and communication is the key for survival of Malaysian citizen. The framework should promotes an entrepreneurial mindset by teaching young students to perceive issues as opportunities and failure as a step toward achievement. Teamwork, resilience, and adaptability are increasingly valued in today's fast-changing workplace.

Problem Statement

Currently, Malaysian secondary school prioritises academic subjects and examination results. There is lack of emphasis on developing soft skills, including entrepreneurship education. The modern workforce demands diverse soft skills such as critical thinking, problem-solving, creativity, communication, and an entrepreneurial mindset (Sani, 2019). There is a growing concern about the need for more emphasis on developing these soft skills due to insufficient focus on entrepreneurship skills in Malaysia's secondary schools (Global et al. for Malaysia, 2017). The leading causes of ineffective education in entrepreneurship can be linked to too much focus on academic achievement, traditional teaching methods and less emphasis on extracurricular activities.

In a world of rapid technological advancements and a dynamic global economy, education direction must change to prepare future generations for future challenges. In addition, curriculum change is needed more than ever as old educational methods struggle to meet new needs. Therefore, a robust entrepreneurship education framework is necessary to meet the growing need for adaptable, forward-thinking people who can prosper in a changing world.

Entrepreneurship education at secondary schools in Malaysia aims to teach students problem-solving, critical thinking, creativity, and communication. The framework promotes an entrepreneurial mindset by teaching kids to perceive issues as opportunities and failure as a step toward achievement. Teamwork, resilience, and adaptability are increasingly valued in today's fast-changing workplace and cultural perception.

According to the Global Entrepreneurship Monitor National Report for Malaysia (2017), which assesses the conditions for entrepreneurship, the expert rating for entrepreneurial activity in Malaysia is at mid-level. Therefore, it is imperative to enhance entrepreneurial education and training in Malaysia, extending it to the secondary school level. Integrating an entrepreneurial component will facilitate the cultivation of an entrepreneurial attitude and enhance students' ability to think entrepreneurially, hence potentially enhancing their soft skills.

A NEW SECONDARY EDUCATION FRAMEWORK

The project aims to provide an innovative Secondary School Entrepreneurship Education Framework to include element of entrepreneurship mindset, knowledge and skills. This new approach modernises the curriculum and encourages young people to innovate and be entrepreneurial. Figure 1 depicts a novel entrepreneurial education module using design

thinking, flipped classrooms, and Korda. Entrepreneurship education at secondary schools in Malaysia aims to teach students problem-solving, critical thinking, creativity, and communication. The framework promotes an entrepreneurial mindset by teaching kids to perceive issues as opportunities and failure as a step toward achievement. Teamwork, resilience, and adaptability are increasingly valued in today's fast-changing workplace. The proposed framework integrated the participation of key several stakeholders as discussed in the following sections.

Stakeholders and their Roles in the Innovative Framework.

Government

The Ministry of Finance, specifically, shapes the education system and ensures entrepreneurship education is incorporated. Policy assistance, money, and resources for entrepreneurship education framework implementation are available. They can collaborate with other ministries to get educational institutions, non-profits, and commercial sector partners to support the framework.

Educational Institutions or Ministry of Education (MOE)

Curriculum creation and implementation depend on schools or the MOE. They can help teachers integrate entrepreneurship into the curriculum and deliver the information. They create entrepreneurship education curriculum using design thinking, flipped courses, and Korda. Teachers will receive entrepreneurial education training. They will then monitor and support framework implementation.

Teachers

Teachers are responsible for delivering the entrepreneurship education content to the students. They can use design thinking, flipped classes, and the Korda method to help students develop their entrepreneurial skills. Teachers can also provide feedback and guidance to students throughout the learning process. Their roles also encourage students to think creatively and critically and solve problems.

Non-profit organisations (NGO)

NGO can participate in the teaching and learning by giving training, mentoring, and networking. NGO can fund and promote entrepreneurial education framework implementation by organising workshops, seminars, and training with educational institutions. Non-profit Malaysian Association of Creativity and Innovation (MACRI) encourages creativity and innovation. They offer programs and training to assist people and businesses in enhancing creativity and innovation. Other organisations include Junior Achievement Malaysia, a non-profit that teaches youth business. Students can create firms and gain entrepreneurial skills through their programs.

Parent Teachers Association (PTA/PIBG) and Students

The Parent-Teacher Association can be crucial in supporting entrepreneurship education. The association can provide feedback and support to the school in implementing the entrepreneurship education framework. The association can initiate collaboration with non-profit organisations and the private sector to support the implementation of the framework.

Private sector

The private sector can provide funding, mentorship, and networking opportunities to students and teachers. They can also collaborate with schools to provide real-world experiences, such as internships, job shadowing, and entrepreneurship competitions. They can provide funding and resources to support the implementation of the entrepreneurship education framework.

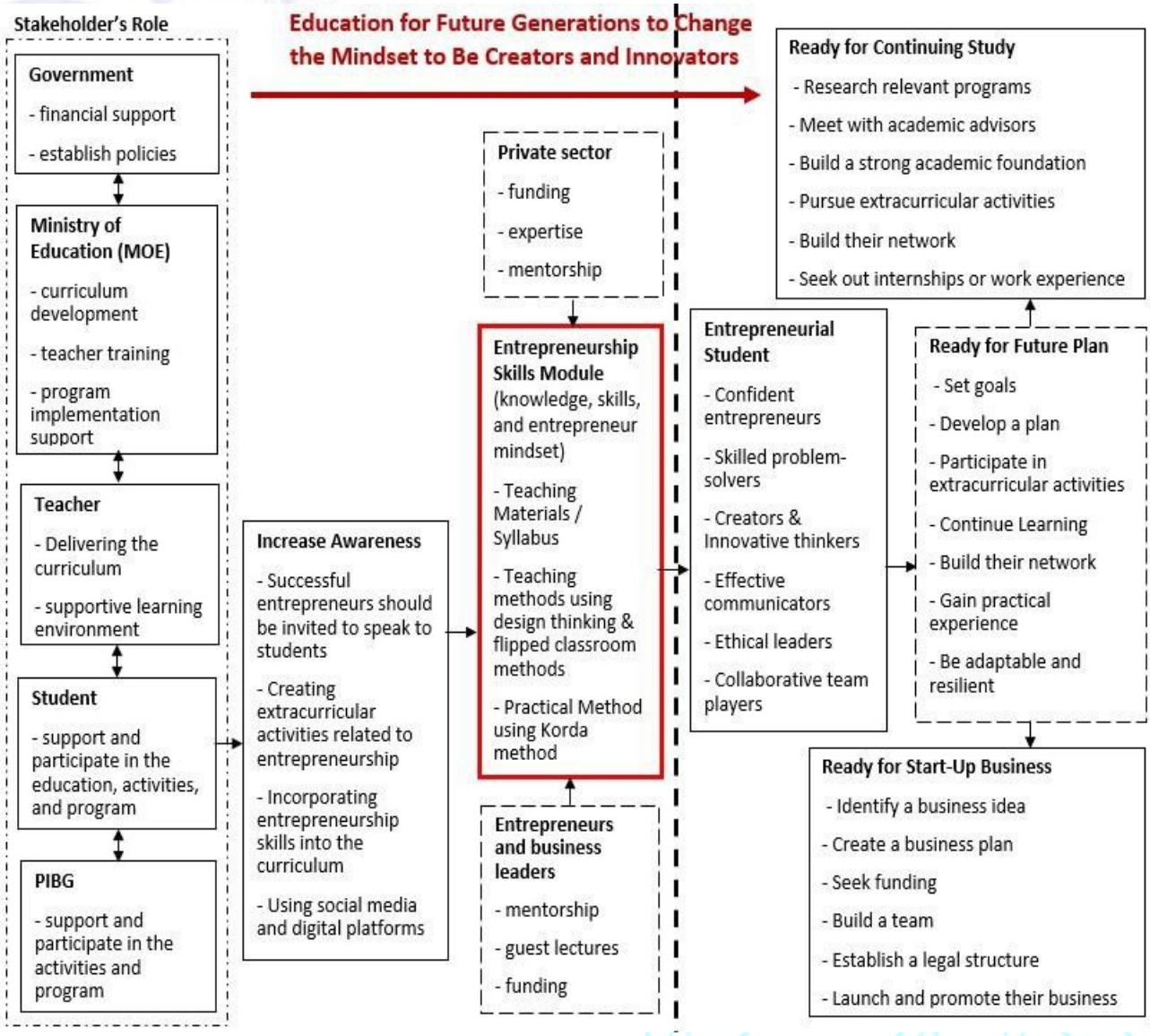

Figure 1: New framework for Malaysian secondary school based on design thinking, flipped classroom, and Korda method

Entrepreneurs and business leaders

Entrepreneurs and business leaders have the ability to offer mentorship, special lectures, and financial help to facilitate the implementation of entrepreneurship skills courses in secondary schools. Entrepreneurs and business leaders have the ability to offer mentorship and networking opportunities to students. In addition, they can provide practical experiences such as business simulations and competitions to facilitate the cultivation of entrepreneurial aptitudes among students.

CONCLUSION

The New Entrepreneurship Education Framework for Malaysian Secondary Schools, based on Design Thinking, Flipped Classes, and the Korda Method, is a turning point in education. This unique techniqueis helping Malaysia develop a new generation of inventive, resilient, and socially concerned leaders. Design Thinking helps students solve real-world challenges with

empathy and creativity.Flipped Classes teach entrepreneurial students self-directed learning and collaboration. The Korda Method bridges theory and practice, giving students hands-on, practical learning to improve entrepreneurial and decision-making skills. By overhauling the curriculum with the Entrepreneurship Education Framework, Malaysia is creating a future workforce with technical skills and the entrepreneurial attitude to adapt, innovate, and create good change in a changing world. This unique structure can help these young entrepreneurs change industries, make a significant impact, and boost Malaysia's economy and society. Let us embrace this innovative educational paradigm with unity and resolve, laying the groundwork for a prosperous future in which entrepreneurship thrives and every young mind is unlocked for the benefit of our nation and the world. We journey towards a brighter, more inventive, more enterprising future.

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