Cyberpreneurs! of Commonwealth Secondary

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Introduction: Entrepreneurship in School

For Singapore to continue to be competitive in the international economic arena, it requires its own breed of entrepreneurs. While Singapore will continue to try to attract the investments of multi-national companies, it requires a portion of its citizens to be able to break new business grounds. Mr Peter Chen, then Senior Minister of State for Education, said, "As a small country with no natural resources, Singapore has to find a way to compete in the global market place. Of necessity, Singapore has to maximise its human resources and focus on the development of a technology and knowledge-based economy in the new century. It demands entrepreneurs who are technically conversant and able to spot opportunities in high tech or high value added products and processes." (Singapore Government Press Release, 2002a)

Can a school do something in its programme to churn out entrepreneurs? According to the Entrepreneurship and Internationalisation Sub-Committee (EISC) of the Economic Review Committee (ERC), the answer is yes. If the Government accepts the committee's proposal, students will soon be given early exposure to the business world. Entrepreneurship education becomes an essential but non-examinable activity in schools. Students do business projects as part of the curriculum and they can have businessmen as their mentors to learn about cash flow and other economic concepts, as well as do business projects (The Straits Times, 13 Sep 2002).

Mr. Tharman Shanmugaratnam, Senior Minister of State for Education said, "Some of the skills required for entrepreneurship can be taught, in educational institutions and through mentoring by real-world..."
practitioners - skills such as market opportunity analysis, hedging your risks, raising funds..." (Singapore Government Press Release, 2002c)

Entrepreneurial activities have educational values. The premise is that entrepreneurship can be taught to youth and when students are given the opportunity to learn about entrepreneurship, their innate "street smart" qualities can develop into "academic smart" qualities and "business smart" qualities. Through entrepreneurial activities, students discover how what they are learning in the classroom can be relevant to the real world. They feel empowered to explore new opportunities and build a vision for the future.

There is therefore value in promoting entrepreneurial literacy and activities among students. The question is to develop good entrepreneurship programmes in school to unlock their unique entrepreneurial creativity, have a greater understanding of the business world, allow some hands-on learning and promote the sharing of knowledge and experience. In this respect, the key principles to consider are:

- Create innovative, experiential curricula;
- Partner with universities, other schools, industrial companies and community-based organizations;
- Provide professional development training and ongoing support to teachers and students in entrepreneurship;
- Provide a platform for knowledge sharing and "spreading the flame".

This article now describes how Commonwealth Secondary School has gone about promoting entrepreneurial literacy and activities among its students through the project "Cyberpreneurs". "Cyberpreneurs" is an innovation project undertaken by Mdm Chia Poh Kenn during her attachment to Commonwealth Secondary School from March to September 2002, as part of her course work for the Leaders in Education Programme (LEP). The LEP, a state of the art leadership programme at the National Institute of Education (NIE), prepares a specially selected group of vice principals and MOE officers for school leadership, emphasising on knowledge creation and innovation. The "Cyberpreneurs" experience can be a good case study for other schools that are embarking on the same journey to develop student entrepreneurs.

Overview of "Cyberpreneurs"

"Cyberpreneurs" is a collaborative school-home-community project that serves as a first step to nurture student entrepreneurs by providing entrepreneurial knowledge and skills to students at Commonwealth Secondary School who aspire to become entrepreneurs. During the project, students experienced authentic learning through an attachment at an e-learning business enterprise where they observed a role model entrepreneur at work. They also met some other local entrepreneurs and interviewed them to gain insights into the making of an entrepreneur. They carried out product market research, prepared a business plan and presented it to an entrepreneur. These students then put together their collective knowledge in a digitised form and made this available through the e-portal to the rest of the school
community. Their next lap in their aspiration to becoming entrepreneurs was to start the young entrepreneurs' enterprise in the school, providing various essential and popular services to other students in school.

**Commonwealth Secondary School**

Commonwealth Secondary School has a visionary principal, Miss Dorothy Tay and a dynamic IT head of department (HOD/IT), Mr Charles Surin. Under their leadership, the school has been actively promoting e-learning. The school also has a new co-curricula activity, Cybernauts, where students serve as IT ambassadors under the guidance of the HOD/IT.

The school also has a strong partnership with parents and other school stakeholders. The school is committed to making the school-home-community collaboration a success. School stakeholders actively participate in a number of school activities. This close partnership avails resources for greater learning opportunities and exposure for Commonwealthians, bringing the school closer to fulfilling the school vision of building the Commonwealthian as one "who has character, confidence and creativity, and is fully committed to the service of the community and the nation."

"Cyberpreneurs" therefore taps on the strengths of the school in IT and stakeholder partnerships. It develops the student entrepreneur by providing them with authentic, experiential learning through an attachment with an e-learning business enterprise, AsknLearn. It also provides entrepreneurship education through seminars with the staff of the School of Business & Accountancy and Innohub Centre, Ngee Ann Polytechnic and a lecturer from National University of Singapore (NUS) Business School, who is the parent of a student at the school. The
knowledge gained by the students who went through the project is shared with the others through an e-learning platform. The pilot project, which proves to be a great success, paves the way for a wider scope of implementation in the school.

**The Technology and Implementation of “Cyberpreneurs”**

Ten lower secondary students were chosen for the pilot project. They were proficient in IT and were enthusiastic about exploring synergies between technology and entrepreneurship. Ngee Ann Polytechnic, and the staff of Innohub Centre of the same polytechnic provided students with an 8-hour course on Entrepreneurship. This provided a body of structured knowledge so that students have an understanding of the concepts and skills to recognize opportunities that others have overlooked, and the insight and knowledge to act where others have hesitated. The project also incorporated a visit to the Innohub Centre at Ngee Ann Polytechnic to inspire students to innovate by providing them with the opportunity to view completed innovations by the polytechnic students. Overall, the experience helped the students to:

- Recognise entrepreneurial opportunities;
- Conduct a self-assessment of their entrepreneurial acumen;
- Gain greater awareness of entrepreneurship qualities;
- Identify issues related to entrepreneurship so as to enable students to conduct an effective interview with a Singapore entrepreneur;
- Understand the stages of business planning, capital development and marketing; and
- Challenge and breakthrough conventional thinking.

AsknLearn provided the students with authentic learning experiences through a 10-day attachment. This was experiential learning in action. The attachment gave the students first hand experience in observing an entrepreneur at work. They also carried out a market survey, analysed pricing, examined customer acceptance level of the product and prepared a business plan stating their recommendations. They interviewed local entrepreneurs to gain insights into what it took to be an entrepreneur, the tears, joy and challenges along the journey. As Mr Tharman said, “It helps to have role models – local examples of individuals making serious amounts of money by taking a different route and working hard at it, and those that have made it big after first falling.” (Singapore Government Press Release, 2002c) To help students plan and manage a business entity, a parent who was a lecturer from the School of Business, National University of Singapore provided basic training in financial projection and analysis.

The school provided the incubator for students to model what they have observed
and learnt from the entrepreneurs and spearhead entrepreneurial projects in the school. These students also served as ambassadors, generating interest in entrepreneurship by sharing their learning experiences with the rest of the school during a school assembly. They consolidated their knowledge of entrepreneurship, digitised it and shared it in the form of an e-project with the other students using an e-portal http://www.cwss.moe.edu.sg/library/cyberpreneur.swf. Annex A has a sample page of the e-portal.

In the near future, these young potential entrepreneurs would take on the role of “student consultants”, providing advice and input for fund raising activities in school that require some entrepreneurial skills. These students would assist in preparing business development proposals. As a result of the project, the students have become more knowledgeable about business enterprise matters. They have recognised opportunities for business ventures in the school and have prepared proposals to start the young entrepreneurs’ venture. The members of the young entrepreneurs’ venture have already submitted two business proposals to the principal to start a digitising service and a bookshop service to support CCA and project work.

Through such business ventures, these student entrepreneurs aimed to:

- Integrate and apply the skills learnt during the “Cyberpreneurs” project into a real-life business venture;
- Provide convenience for students who require certain popular services in school at cheaper rates and shorter turnaround time; and
- Raise money for the school’s CCA fund by contributing to the school around 50% of the profits earned.

In the digitising service business venture, the student entrepreneurs planned to offer the students services such as:

- Printing/Photocopying services
- Laminating services
- Binding services
- Scanning services
- Making already-scanned photos into clearer and sharper photos
- Burning photos into a compact disc

In the bookshop business venture, the student entrepreneurs focused on the sale of the following:

- Newspapers (The Straits Times and The New Paper)
- Magazines (Teenage and Lime)
- Second-book story books and magazines
- CD-R/RW
- Floppy Disk
- Floppy disk holders
- Project-work materials (Vanguard sheets, Styrofoam boards etc.)
- Special School Souvenir items (Memo Pads etc.)

**Impact of the “Cyberpreneurs” Project**

Before and after the project, surveys comprising eight questions on concepts and issues related to entrepreneurship were carried out. The focus of the questions was to gauge students understanding of:

- Who an entrepreneur is;
- The qualities required to be an entrepreneur; and
- How to prepare a business plan.

The survey analysis showed that 90% of the students indicated that they knew what it meant to be an entrepreneur after the project compared to only 20% before the project. Also, after the project, 100% of the
students indicated that they knew how to prepare a business plan, compared to only 10% before the project.

As part of the project, the students were required to reflect on what they have learned through the experience. These documented reflections revealed interesting insights about the students’ mental model of entrepreneurship and their feelings about the “Cyberpreneurs” project. Some of the reflections:

Chan DeYang (Sec 1/4):
I learnt that being an entrepreneur involves taking risks, being dedicated, having a passion and most of all being able to think out-of-the-box, being creative. To me, having a passion for something and being dedicated is not a problem. I think I have interest in being an entrepreneur. However, I realise that I am not a very creative person and I need to improve on that!

Koh Ren Kiat (Sec 1/4):
Being innovative is very important for an entrepreneur. I do not think I am a very creative or innovative person, but I have determination, which is also very important to be a successful entrepreneur.

Vinoth Gopinathan (Sec 2/4):
I realise that being an entrepreneur is not easy. It requires a lot of determination, creativity, being able to accept failures and recovering from them as well as being brave enough to take calculated risks.

Maung Thu Yain Pye Aung (Sec 2/6):
Being patient, diplomatic and attentive to customers will help an entrepreneur to do well.

Ooi Kang Sheng (Sec 1/5):
I think this course has helped me in taking a big step towards becoming an entrepreneur.

“Cyberpreneurs” as a project prototype has shown potential for expansion and adaptation to other business contexts. The school can organise a similar course on entrepreneur education for other interested students. The young entrepreneurs’ venture can lead to many other spin-offs in the future, such as an e-entrepreneurial venture (business on the web). The pioneer student entrepreneurs will be recruiting new members to join them in their activities. The entrepreneur education material on the e-portal can be enhanced and enriched.

Mdm Chia Poh Kenn shared that in carrying out this project, it was necessary to bear in mind the cultural factor in school. Entrepreneurship was not an established component of the school programme. Therefore, she had to talk to teachers and students about it so that they would buy into the idea. In order to get the teachers to accept her idea and share her enthusiasm, she had to emphasise the educational value of “Cyberpreneurs” and to assure them that it was not a gimmick or something to create additional work for them. To ensure the sustainability of the project, she had to enthuse the people involved so that there would be commitment towards the project. Although she had the innovation idea, to have it realised, collaborative relationships with people were important. Also, she had to adopt an open and flexible attitude throughout the implementation process. Even though there were main planned stages, there were no rigid and linear steps in the process. Instead, she constantly scanned the environment to make adjustments to smoothen the process.

Conclusion

To support a national economic strategy, one thing schools can do is to create a school environment that encourages entrepreneurship to flourish. It is only when this entrepreneurial spirit is fostered in school that entrepreneurship will take off more successfully in Singapore. Through school-business partnership to
provide an authentic learning experience, enabled by technology to encapsulate and share knowledge on entrepreneurship, "Cyberpreneurs" has just provided the Entrepreneurship and Internationalisation Sub-Committee (EISC) of the Economic Review Committee (ERC) a working prototype of entrepreneurship education in Singapore schools.

References


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ANNEX A: A sample page of the project from the website