



科學創意中心

為更有效地推廣科學創意，向教育界提供更系統及有效的支援，本會已於2006年3月成功向教育統籌局爭取將原西貢郊野學習館改建為「香港新一代文化協會科學創意中心」（下稱「科創中心」）。科創中心將主辦及承辦本港、全國及國際科學賽事，舉辦一系列以教師、學生、家長為對象的工作坊、講座及科學創意親子活動，設立學界科學英雄榜及優秀作品展覽，舉辦「良師啟導計劃——未來科學家培育計劃」、「特別資優學生培育支援計劃」，以及各類到校支援工作，旨在為全港中小學的師生、家長提供全面而多元化的科學創意活動。中心座落於西貢戶外康樂中心營地內，環境幽靜，風景如畫。中心會舉辦不同類型的科學創意活動，例如科普講座、創意工作坊等，歡迎全港師生及家長參加。除此之外，中心亦會為特別資優學生舉辦創意培訓日營或宿營，亦安排赴酒泉衛星發射中心或北京航天指揮控制中心作一星期的考察活動。

中心總監的話

為什麼我們需要更多有創意的孩子？

為人父母者都希望子女學業成績優異，考試有良好的表現，但香港人著眼在考試成績和補習班的思想阻礙了追求和學習真正的知識。報章雜誌滿是補習班的廣告，他們聲稱「我們承諾你數學科拿A，否則原銀奉還」，或者是「三個月內學曉科學」。這一種「教育」模式不僅約束那些需要面對公開試的高年級學生，更會危害到年紀更輕的小學生。因此填鴨式教育不會教曉他們任何東西，反而扼殺了孩子的創意思維。

知識無疑是重要的，但在這個互聯網年代，知識不再只是局限於大學課堂內，任何人只要連線到互聯網，隨時隨地也找到世界上的任何知識。如果我們繼續在教導我們的孩子時，不訓練他們如何獨立和創新地思考，那麼當他們長大後將會給其他國家的孩子比下去。愛因斯坦曾說：「創意比知識更為重要」，還有另一個說法：「知識可以改變命運」，但是我更贊同「創意可以改變人類」！

曾經有報導指出，有部分香港的小朋友十二歲不會自己繫鞋帶，八歲不會自己吃飯，相信這是因為家長過度保護和溺愛子女所致。我認為我們要給孩子們多一點空間去探索世界，多一點機會做屬於他們自己的事及多一點時間給他們思考。為鼓勵孩子們更富創意，我們必須停止打擊他們的創造力。所有小孩子天生都是有創意的，十二歲前為最佳。他們常常會問很多有趣的問題，在學校和家裡會提出一些有創意的想法，但這些問題和想法往往會被我們這些大人所「扼殺」，有時候更會被他們的同輩取笑。多年來的洩氣似乎導致小孩子的創造力有所下降，令他們「打回

In order to advocate science and creativity education, as well as provide systematic and effective support for local education profession, HKNGCA had gained support from HKSAR, Education and Manpower Bureau (EMB)-as EMB granted HKNGCA a recreation camp site in Sai Kung for setting up HKNGCA, Science and Innovation Centre (SIC). The camp site, originally, was where Field Studies Centre, Sai Kung located. SIC has undertaken to host the science-oriented competitions in Hong Kong, China, and even those overseas. Science lectures and workshops as well as science creativity activities will be organized for students, teachers and parents. Other facilities and activities of SIC include Science Hall of Fame, exhibitions, "Mentoring Scheme for the Scientifically and Technologically Gifted", "Support Measures for the Exceptionally Gifted Students Scheme" and on-campus support work to local schools. Diversified and comprehensive, SIC will do its best to offer science creativity activities to both primary and secondary students, teachers and parents. As the Centre is within a recreational camp site in a quiet and picturesque part of Sai Kung in Hong Kong. Students can join day camp activities as well as over-night programs which run from 2 to 4 days. Special programs are also designed for gifted science students including a one week course at the Jiuquan Satellite Launch Center in northwest China or Beijing Aerospace Command Centre.

原形」，跟一般「正常」的小朋友無異。那他們會很努力學習然後爭取好成績，長大後成為成功的律師、會計師、醫生、企業家等。不過，有部分孩子仍然會繼續問一些傻問題，表現得有點「不正常」，長大後他們就是出色的科學家、發明家或者是藝術家。

有一個非常好的天才兒童例子，就是少年發明家陳易希，他是本會一手培育和訓練出來的。記得我們初次接觸易希，他就像一個12歲的普通孩子，來自一個普通的家庭，在屯門一所普通的學校念書，但他那些超凡創新的意念和對科學的熱誠卻讓我們振驚不已。自此我們開始培育他，為他提供機會參加不同的全國性以及國際性的科學比賽，他傑出的表現均展示他比年長的參加者更有才華。在2005年，他卓越的成績更得到國際天文學聯盟的認可，把一顆編號為「20780」的小行星以他的名字命名。當易希取得這個表彰時年僅15歲，亦只有很少數的諾貝爾科學得獎者獲得此項殊榮。他的科學發明已經達到大學研究級的水平，難怪香港科技大學校長朱經武博士史無前例地破格錄取易希，讓他免試入讀科技大學的工程系。

在很多國家，包括國內的清華大學和北京大學，因學生有特別才能而獲得大學免試取錄是很普遍的事，但是香港的學生仍然依循傳統的、以考試為主的途徑進入大學，這對創造力和獨立思考是沒有鼓勵作用的。因此當聽聞有僑主指出香港的年青人在解決問題時缺乏創新的意念，我們一點也不感到驚訝。大部份香港學生習慣牢記教材中的解題方法來應付問題，他們甚少需要發掘真正的問題，更遑論是發現有創意的答案！

為鼓勵我們的孩子和我們有一個富創意的生活和學習得更創新，我建議我們需要時常記著以下8句話：好奇，放鬆，擴闊，察覺，思考，幻想，冒險，古怪！

黃金耀博士
(香港新一代文化協會科學創意中心總監)



Centre Director's Remarks

Why we need more creative children?

All parents want their children to excel in their school work and perform well in exams. However Hong Kong's obsession with exam results and tutorial schools is threatening to eclipse the pursuit of real knowledge and learning. Newspapers and magazines are full of advertisements for tutorial centres. They say, "We promise you will get a grade A in maths or your money back," or "to teach you science in three months!" This mode of 'education' is not restricted to senior students who have to face public exams, but is also threatening our younger kids in primary schools. Spoon-feeding our children with knowledge will not teach them anything except the shape of the spoon!

Knowledge is of course important, however in this internet age, knowledge is no longer restricted to those who can attend universities, but anyone anywhere who has access to the internet can share the knowledge of our world. If we continue just to transfer knowledge to our children without training them how to think independently and creatively, then they are going to lack behind our world's partners when they grow up. Albert Einstein once said "creativity is more important than knowledge", there is also a saying that "knowledge can change one's fate", but I think creativity can change mankind!

There have been reports claiming that some of our Hong Kong children cannot tie their own shoelaces even at the age of 12 or feed themselves when they are 8! This is the result of parents over protecting and caring for our kids. I think we should allow our children more freedom to explore the world, more opportunities to do things for themselves and more time for them just to think. To encourage our children to be more creative, we should stop discouraging their creativity. All children are born creative; they are most creative before the age of 12. They often ask a lot of interesting questions and come up with creative ideas at school and at home, but very often these questions and ideas are "killed" by us adults and sometimes get laughed at by their peers. After years of discouragement, their creative powers seem to drop and they fall in line with the rest of the kids and become what is regarded as "normal". They study hard at school and get good grades and grow up to become successful lawyers, accountants,

doctors, entrepreneurs etc. However there are few who continue to ask silly questions and behave "abnormally", they often grow up to become outstanding scientists, inventors or artists.

One good example of such a gifted child is young inventor Chan Yik-hei whom we have nurtured and trained from our organization. When we first met Yik-hei, he appeared to us just as an ordinary 12 years old from an ordinary family, studying at a very ordinary school from Tuen Mun. But what shocked us was his extra-ordinary innovative ideas and his passion for science. We began to train him and provide him with opportunities to take part in various national and international science competitions which he excelled and out-shone those who were much older than him. His achievement was recognized by the International Astronomical Union in 2005, which named the minor planet "20780" after him. Yik-hei was still 15 when he received this recognition, only a handful of science Nobel laureates received this honour! His scientific inventions were at university research level, no wonder that Professor Paul Chu, President of the University of Science & Technology of Hong Kong, took the unprecedented step in offering Yik-hei a place to study Engineering at the University without having to go through the necessary exams.

This route of getting a university place is very common in many countries, including Mainland universities like Tsinghua or Beijing. However Hong Kong students are still following the traditional and exam-orientated pathway in entering universities, which does not encourage creativity and independent thinking. It is not surprising to hear from employers that Hong Kong young generation perform badly in coming up with innovative ideas in solving problems. Most Hong Kong students are trained to follow notes and suggested solutions in solving problems. They rarely need to create real problems for themselves, let alone find creative solutions!

To encourage our children and ourselves to live a more creative life and learn more innovatively, I suggest we should always keep in mind the following 8 words: Curiosity, Relax, Expand, Aware, Think, Imagine, Venture, Eccentric!

Dr. Jimmy K.Y. Wong
(Director of Hong Kong New Generation Science Innovation Centre)