04

QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

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138
Publications in SCOPUS

1092
Course units

3.7%
Percentage of all Taiwan publications

21801
Students who chose the course units

Research

Rural Healthcare Solution:
Government-Sponsored Medical Talent Training System

Taiwan has a system that offers government-sponsored scholarships to medical students to deliver well-trained physicians to regions that lack medical resources and encourage doctors to move into less popular specialties. So far, there have been two government-sponsored medical student cultivation programs. The first originated at the School of Medicine of National Yang Ming University (now NYCU) in 1975, later expanding to other universities, before it ended in 2009. The second program focused on training doctors in specific specialties. It launched in 2016 and is expected to end in 2025. Since the NYCU College of Medicine was originally founded to train government-sponsored doctors, many professors of the School of Medicine, including Yuan-I Chang, Chi-Chang Juan, Jiin-Cherng Yen, Jiing-Feng Lirng, Ling-Yu Yang, and Chen-Huan Chen, jointly wrote an article reviewing the history, current situation, and prospects of the College of Medicine's government-sponsored medical student cultivation programs, hoping to contribute to the reform of Taiwan's medical student sponsorship system. This retrospective article has been published on the Public Medical Talent Training Forum.

Dual-Task Training Using Fitness Games:
Maintaining the Elderly's Physical and Mental Health

Aging is associated with a decline in executive function, which may lead to reduced dual-task performance among the elderly. Regular training is the only way to maintain older people's mental and physical health, and training-through-fitness games may have the potential to enhance their exercise adherence. A research team led by Professor Ray-Yau Wang of the Department of Physical Therapy and Assistive Technology devised a dual-task training system based on fitness games. Through its experiment, the team discovered that elderly people who received dual-task training based on fitness games (experimental group) had better executive functions, inhibitory control, cognitive dual-task performance, and community walking ability than elderly people who received home-based multicomponent exercise training (control group). These results suggested that fitness game-based dual-task training improved both executive functioning and dual-task performance in the elderly; furthermore, these positive effects could be transferred to enhance community walking ability. The team's research findings have been published in the *Games for Health Journal*.

Promoting "Theory-Practice Integration" for Veterans

In 2021, NYCU signed an industry–academia collaboration agreement with the Taoyuan City Veterans Service Office to promote "theory–practice integration" for veterans, helping veterans and class-two retired officers improve their competency and professionalism in the hopes of assisting them to further their education or find employment. NYCU Vice President Yung-Fu Chen stated that in line with the university's social responsibilities and in response to society's needs, it is valuable to train veterans in emerging fields such as biomedicine, artificial intelligence, robotics, smart medical care, and big data; these are set to not only become the stages for global innovation but also reshape technology as we know it. He also commended the Veterans Affairs Council for its "theory–practice integration" program, among its many other education measures that encourage retired officers to keep up with the times, learn diverse skills, and improve their competitiveness in the job market.

Social Impact

Making Dreams Come True - Rural Indigenous Education

NYCU's Sanfu Power Club (the Club) has found that, through increasing subsidies and funding from private organizations in recent years, the hardware equipment gap between urban and rural areas has been reduced. Now, the real gap lies in family, manpower, and cultural disparities. The structure of most families in rural areas is not as complete compared to those in urban areas. Most parents must move away to make a living and thus live separately from their children. Teachers are highly important since parents are not around to educate and raise their children. Yet, due to the poor conditions in rural areas, few teachers are willing to stay and teach there for the long term. Additionally, there are cultural differences between children from indigenous tribes and teachers from urban areas, so when teachers use their own experiences as examples, the children sometimes find them difficult to understand. To intervene, in recent years, the Club has focused on expanding the imagination of indigenous children by introducing them to different cultures and broadening their horizons.

Student Cultivation

Bring the World to the Classrooms

Six NYCU international students ran "Bring the World to the Classrooms" activities at Fu Li Junior High School in Xiangshan District, Hsinchu City. They mainly shared the cultures and festival etiquettes of each of their home countries, which they combined with their expertise in sports, science experiments, and webpage design to interact with the students. Through easy-sharing topics, they let the junior high school students try out some of their English, and in doing so, removed much of their fear of speaking with foreigners. Mong-Hwa Chin of the NYCU Office of International Affairs commented that there are few opportunities for junior high school students to learn or practice conversational English vocabulary, nor interact with foreigners. To begin to remedy that, "Bring the World to the Classrooms" supported rural education in action, as well as strengthening the bond between university and community.

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Student Cultivation

Joining Efforts with the Taoyuan City Government to Build a High School Digital Learning Platform

NYCU has long promoted the concept of open and shared education, and accordingly, it has built the "ewant Open Education Platform" to share high-quality educational resources with the public. In 2021, NYCU also signed an MOU with the Taoyuan City Government to establish the "Taoyuan City High School Digital Learning Platform," which includes 100 selected courses suitable for high school students. Going forward, the platform will gradually begin to offer digital courses on AI, sustainable development, green agriculture and tourism, Python for basic physics, and hands-on workshops. At the same time, teachers are encouraged to work together to prepare classes and set up online courses so that learning may no longer be confined to the classroom. NYCU President Chi-Hung Lin said, "I believe that, with proper guidance, young children will be able to improve their independent learning ability and adopt the trend of online learning by navigating the cyber world they are so familiar with and explore their interests through a variety of digital courses." Going forward, NYCU will continue to expand its collaborative partnerships and, echoing the UN's SDGs, develop more industry–government–academia collaboration, thereby fostering the creation of shared education resources for diverse courses, learning methods, and advancements that will make quality education resources more accessible for all.

Online Talent Training - High School Talent Cultivation Programs

To promote the philosophy of shared education in Taiwan through high school online learning, NYCU added university-level Massive Open Online Courses (MOOCs) to the ewant Open Education Platform, to establish the High School Talent Cultivation Programs in cooperation with the Global Education Innovation Organization. The programs provide high school students with means to expand their skills, improve their literacy, and learn the basics of professional subjects before enrolling at university. There are 19 talent cultivation programs including game design, Chinese medicine, and big data. Courses are offered through the NYCU ewant Open Education Platform, which professors can utilize to interact with students who can take online tests and final exams. Students who complete the courses and pass the evaluations are issued a certificate of completion or study.

Stewardship

It's Okay to Be Different!

NYCU's Arete Honors Program started a podcast in 2021 to help students, cultivated under the Master Framework for the 12-Year Basic Education Curriculum Guidelines, explore and learn more about themselves. Through stories of people with different educational backgrounds, the podcast aims to show students there are other ways outside of academia to discover what they love, and that they can still try new things and think about future plans they have been newly inspired to pursue while at university. To prove that, the show invited 10 accomplished guests to subvert people's impressions of young people. While most people grow through the traditional school system, studying, taking exams, learning to get along with others, and developing one's own values, there are also those who find themselves by forging a path of their own.