

Dialogue

Endless Power of Education

By LONG Yun & BI Weizi

"It is a blessing and a gift to be an educator, because it is a big responsibility to educate the younger generation, the future of the world," said Antoine Barnaart, director of Confucius Institute of Queensland University of Technology, Australia. Barnaart is a highly respected expert in the field of education, having dedicated nearly 40 years of his life to teaching and managing higher education and vocational programs, both in Australia and internationally.

In a recent interview with *Science and Technology Daily*, the Australian educator shared his insights on topics like cross-cultural communication and vocational education.

Education, the most powerful aid

With a wealth of experience and a deep commitment to his work, Barnaart has made a significant impact on the lives of his students and communities in the Pacific Islands.

Barnaart is specially concerned about the fate of people living in the Pacific Islands countries, who are highly vulnerable to the impact of climate change. He has been committed to helping people, especially the younger generation in these countries, such as Kiribati and Fiji, receive the right type of aid and support, in order to help them overcome the challenges they face.

From his perspective, "Education, ideas, and knowledge can be the most powerful type of aid, rather than focusing too much on building infrastructure, which can have a limited lifespan, and requires expertise and resources to maintain." Barnaart believes that "clear and uncomplicated" education and support can empower these communities to build a brighter future for themselves and their families.

He has seen the first-hand challenges faced by the younger generation living in Kiribati, where employment opportunities are limited, forcing many



Professor Antoine Barnaart. (COURTESY PHOTO)

young people to look for study and work opportunities overseas. He also recognizes that young people need more than just technical skills to be successful in today's competitive global workplace. "They also need strong language skills, core employability skills, and cross-cultural skills," he said.

Barnaart emphasizes the role of learning foreign languages in communicating values and cultures. "Studying both language and culture allows you to know more than just words and grammar. It allows you to know what to say, when to say it, how to say it, and when to say nothing," said he.

Best time in his professional life

From 2004 to 2007, Barnaart led the Australia-China Vocational Education Project in Chongqing. "It was one of the best times in my professional life," he said.

His experience working in China was extremely fulfilling as he found

his Chinese counterparts highly motivated, eager to learn and open to new ideas. Moreover, he was impressed by the fact that Chinese central and municipal governments provided substantial financial and policy support for the project.

The joint efforts of the teams from Australia and China have generated many tangible signs of progress. According to his counterparts in Chongqing, the Australian team helped "change their mindset and perspective" regarding how their system and school could improve vocational education outcomes.

"Now, in many areas of China, I believe vocational education is world-class," Barnaart said. Nowadays, he is impressed by the balance between practical and theoretical training in China's vocational education system, especially in Chongqing. He applauded the policy-based approach to training and a constant focus on competency-based assessments.

At the same time, the vocational schools and colleges in China are well-equipped with the necessary equipment and facilities to provide hands-on training for every individual student. According to Barnaart, the establishment of closer partnerships with industry has resulted in a highly dynamic learning environment that prepares students well for careers in their respective fields. These close partnerships have been critical in ensuring that the provided education meets the needs of industry and that graduates are equipped with the necessary skills for the workforce.

A Life-long educator

Despite reaching retirement age, Barnaart still feels the excitement and thrill of being in a classroom and interacting with students. His love for education runs so deep that he has made a choice to be a life-long educator.

One of the reasons why this Australian is so passionate about his work is that he believes teaching is a continuous learning journey. Every year is different, and he is presented with new challenges and opportunities for growth and development.

Being a life-long educator is not just a job or career choice, but a calling that will drive him forward. He finds joy in sharing his knowledge and experiences with students, and the friendships he has forged along the way make the journey even more meaningful.

In 2007 in the Great Hall of the People, Beijing, Barnaart was awarded the Chinese Government Friendship Award, by the Government of the People's Republic of China, in recognition of an outstanding contribution to the development and construction of China by a foreign expert.

This article is also contributed by Dr. BI Liangliang from the Chinese Association for Science of Science and SET Policy.

Chinese Language, A Cross-cultural Bridge

By YANG Xian

Oath of the Peach Garden and *Cao Chong Weighing the Elephant* are famous classic stories in *Three Kingdoms*, one of the best-known Chinese classical novels. Now, fans of Chinese culture will have easier access to these classic stories and the intangible cultural heritages behind them through an online program.

Three Kingdoms Intangible Cultural Heritage online program, part of the Chinese Bridge program, formally commenced recently. The course has attracted 302 students from 28 countries, all keen to experience China's intangible cultural heritage.

The Chinese Bridge online program is divided into three modules: Cultural Topic, Intangible Cultural Heritage Topic, and Language Course, aiming to integrate Chinese culture into language teaching, enhance international students' understanding of Chinese history, and improve their ability to use Chinese.

In the experiential classes, students will watch demonstrations of intangible heritage techniques such as five-animal martial arts movements, exploring the essence of Chinese culture.

Kuziva, a student from Zimbabwe, has signed up for this Chinese Bridge project. "I want to learn Chinese better through this program and apply it to daily life. Also, I like Chinese traditional cul-

ture and hope to learn more about intangible heritage knowledge," she said. An Indian student said that the program promotes cross-cultural communication, and he hopes that more Indian people and students will visit China to experience the charm of Chinese traditional culture.

Yanagi Motoko, a Chinese teacher from Osaka, Japan, who has been teaching for many years, saw the introduction of this program through her social network and registered to participate. A Vietnamese student contacted the organizers through the WeChat public account and introduced 136 Vietnamese students to the program. These international students showed a strong interest in Chinese culture. They said that Chinese culture is the only culture that has not experienced a break, and its time-honored history fascinated them.

This program was hosted by the China Foreign Language Exchange and Cooperation Center and organized by Wuhan University of Science and Technology. Lv Yong, vice president of Wuhan University of Science and Technology, hoped that the program can promote cultural exchanges between China and foreign countries, and enhance the bridge of culture and friendship.

This article is also contributed by Wuhan University of Science and Technology.



An international student experiences the Chinese Bridge Online program. (PHOTO: Wuhan University of Science and Technology)

Traditional Eastern Wisdom

Origin of Soybean Domestication

By BI Weizi

Soybean, called "Shu" in ancient times, is one of the five traditional cereals in China, not only as a major edible oil crop but also an important source of plant protein. China is recognized as the origin of soybean domestication by domestic and foreign academics.

Around 9,000-7,000 years ago, the ancestors of the Pei-Li-Gang culture, which was distributed in the middle reaches of the Yellow River and the

Huaihe River basin, already began to make use of wild soybean plants. By 5000-4000 years ago in the Longshan era, a late Neolithic culture in the middle and lower Yellow River valley areas of northern China, from about 3000 to 1900 BC, soybeans had shown distinctive characteristics of domesticated species. Charred soybeans of sizes between wild and cultivated varieties dating from 4000 years, were unearthed in 2019 at sites such as Wadian in Yuzhou, Henan province, Taosi in Shanxi prov-

ince, and Zhouyuan in Shaanxi province. After the Xia and Shang Dynasties, the size of soybean seeds increased significantly, and this domestication process continued into the Han Dynasty (202BC-220).

After the Han Dynasty, rice and wheat replaced soybeans as a staple food, and soybeans were used in a wide range of applications as a side dish and for seasoning. During the Western Han Dynasty, people began using soybeans as raw materials for soy sauce, which

gradually developed into soybean sauce. Tofu is said to be invented by Liu An, the King of Huainan state in the Western Han Dynasty.

Soybean domestication was an important creation of ancient Chinese. It was introduced to Korea from northern China around the Qin Dynasty, and then to Japan, and only after the 18th century did the beans gradually spread to Europe and the United States, becoming one of the world's major oil and feed crops.

Early-onset Alzheimer's Disease

Science Outreach

By Staff Reporters

A team led by Jia Jianping, of the Innovation Center for Neurological Disorders at the Capital Medical University's Xuanwu Hospital in Beijing, claimed to have discovered the world's youngest Alzheimer's disease patient, according to a study published in the *Journal of Alzheimer's Disease* recently.

The 19-year-old patient from Beijing was diagnosed with Alzheimer's disease after exhibiting mild brain atrophy, before which he had been suffering from short-term memory loss for two years.

Alzheimer's disease, commonly known as dementia, affects mostly elderly people, but in recent years, many cases of young patients in their twenties have been identified. Is Alzheimer's disease "targeting" younger people? Professor Zhang Zhuo Bo, director of the Department of Neurology at the Fourth Affiliated Hospital of Harbin Medical University, told *Science Popularization Times* that some young patients with Alzheimer's disease have been detected earlier due to the advancement of detection methods and technology, but they are individual cases and do not necessarily mean early-onset Alzheimer's disease.

Early-onset Alzheimer's disease, which affects people younger than 65,

is considered uncommon as it accounts for only 5-10 percent of all known cases, Zhang said, adding that almost all patients younger than thirty have pathological gene mutations.

According to Dr. Zhang, the main contributing factors for many young people experiencing memory loss are unhealthy lifestyle, chronic stress or overwork rather than pathological causes. However, one should go to see a doctor for further examination if presenting symptoms such as difficulty recognizing directions, remembering the names of familiar people, or confusion about time and space, when in good health.

Previously, Jia's team conducted a large population-based cohort study in China to look at the effects of different lifestyles on memory function in the elderly over a 10-year period, shedding new light on the prevention and mitigation of age-related memory decline.

The research results show that a healthy lifestyle can significantly delay memory loss, which includes consuming seven of the 12 diets of cereals, legumes, vegetables, fruits, meat, eggs, nuts, dairy products, moderate amounts of salt, oil, fish and tea every day; no less than 150 minutes of moderate intensity or no less than 75 minutes of vigorous physical activity per week; no less than two social activities per week; time allocated to reading, thinking and writing each week; no smoking or alcohol.

"Increasing awareness of a healthy life style will have a significant impact on the brain health of our entire population," said Zhang.

Photo News



Haihong Wetland Park

Photo from January 5, 2023 shows a scene of Haihong Wetland Park, Kunming, Yunnan province. Located on the north shore of Dianchi Lake and west of the mouth of the Panlong River, Haihong Wetland Park is not only a popular place for leisure activities, but also a lakeside ecological barrier of Dianchi. Recently, the colorful leaves of the Metasequoia, dawn redwood trees, in Haihong Wetland Park are attracting many tourists from across the country. (PHOTO: XINHUA)

China-ASEAN to Promote Sci-tech Cooperation

By CHEN Peng & TANG Zhexiao

China looks forward to working together with ASEAN in the near future to review jointly plans for cooperation, so as to effectively promote China-ASEAN sci-tech exchanges and cooperation, Chinese Ambassador to ASEAN Hou Yanqi, said on February 17 at the awards ceremony of the 2022 China-ASEAN Innovation and Entrepreneurship Competition.

In her remarks, Ambassador Hou congratulated the winners and expressed China's willingness to work together with ASEAN to make the competition a shining example, promote the industrialization of innovation and entrepreneurship achievements.

"It is believed that this Competition will make positive contributions to promoting the building of an even closer China-ASEAN community with a shared future," said Hou. During the Awards Ceremony, Hou and Deputy Secretary-Gener-

al Satvinder Singh jointly presented the trophies and certificates to the winners of the competition.

Two first prizes, six second prizes and 12 third prizes were awarded, and 10 groups of creative stars and cooperation stars were selected among 71 competitive groups.

The success of the competition has fully demonstrated the vitality and potential of science and technology innovation in the region, said Singh.

He added that ASEAN also hoped to work closely with China to strengthen the brand of this Competition and attract more young people to participate in ASEAN-China sci-tech exchanges and cooperation.

Co-hosted by China's Ministry of Science and Technology and the ASEAN Secretariat, the competition mainly focused on key industrial fields including modern agriculture, bio-medicine and health, digital economy, energy conservation, and environmental protection.