

NEWSMAKER INTERVIEW

University Head Zhu Qingshi Challenges Old Academic Ways

BEIJING—Every autumn when Nobel Prize winners are announced and the world's most populous nation misses out—yet again—the mass media and blogs here blame an education system that values rote memorization over creativity. Widespread disaffection is a factor, Chinese state media observed, behind the National People's Congress's decision earlier this month to sack Education Minister Zhou Ji.

But true change may come only from the bottom up. In September, the government of Shenzhen, a city in southern China, appointed physical chemist Zhu Qingshi as president of the planned South University of Science and Technology (SUST). Zhu insisted on also being appointed the university's Communist Party secretary, making it clear he would be calling the shots.

A Sichuan native, Zhu, 63, graduated from the University of Science and Technology of China here in 1968 (USTC later moved to Hefei) and has been a visiting fellow at several top overseas labs, including the University of Oxford, the University of Cambridge, and the Massachusetts Institute of Technology. Zhu's pioneering research in laser spectroscopy won him election to the Chinese Academy of Sciences at the tender age of 45. He became known as a reformer during his tenure as USTC president from 1998 to 2008.

Shenzhen, near Hong Kong, was the cradle of China's market economy 30 years ago. In its bid to become a paragon of education reform, the city paid nearly \$1 billion for the land for SUST's campus, expected to open in 2012 with an enrolment of 1500 undergraduates and 500 graduate students in science and engineering—all on scholarships covering tuition and living expenses. (SUST will launch with a small group of students in temporary digs next year.) In an interview with *Science*, Zhu explained how he intends to shake up China's university system—whether the education ministry likes it or not.

—RICHARD STONE



Q: What did you do in Hefei to earn your reputation as a reformer?

Z.Q.: My most important contribution to USTC was not what I did but what I did *not* do. In the past several years, Chinese universities grew very quickly, buying up land and enlarging enrollments. But teaching staffs were not expanded. We wanted to maintain academic standards, so we rejected this approach. Secondly, the Ministry of Education evaluates teaching and research activities at all universities. Evaluation is a good thing. But the ministry's evaluation now is not a real evaluation; it's a formal exercise.

Q: An exercise in wining and dining?

Z.Q.: Exactly. The evaluators would come to our university, and we didn't prepare anything special; instead we asked them to observe the professors and students.

Q: Did the education ministry appreciate your approach?

Z.Q.: No, they did not appreciate it. We didn't get perfect marks, but around 70% of China's universities did. Everybody knows the evalua-

tion has no meaning. Of course, it's connected to funding, and our university got less money from the central government. But we kept a very high level of education and research.

Q: In what way will SUST be different from other Chinese universities?

Z.Q.: We will abolish rank: what we call debureaucratization of the administration.

Q: How will that help?

Z.Q.: The main problem in higher education is bureaucratic power. Many professors now pursue bureaucratic rank instead of academic excellence. If you attain a high rank, you get money, a car, research funding. This is why Chinese universities have lost vitality.

Q: How will you persuade people to work for SUST rather than top universities like Tsinghua or Beida [Peking University]?

Z.Q.: First, the Shenzhen government promised that we can hire professors at the same salary as professors at Hong Kong University of Science and Technology. That's higher than Beida, even higher than many U.S. universities. Also, SUST will be the first university in China with a significant budget for research. This is something I'm pursuing very hard. We don't want our professors to have to continuously apply for funding.

Q: A lot of critics say that China's education system suppresses creativity. At the teaching level, what needs to change?

Z.Q.: We feel that the whole year of grade three of high school [equivalent to senior year in the United States] is wasted just preparing for the *Gao Kao* [the national university entrance exam].

At SUST, we will not enroll students based on *Gao Kao* results. We will enroll them directly from grade two of high school. Next year, we will take 50 students from grade two.

Q: Does the education ministry see your rebel attitude as a threat to its authority?

Z.Q.: They might not forbid us to carry out our plan, but they also might not encourage us. There is a danger that our students may not get a diploma issued by the education ministry. My goal is to ensure that my students are accepted by society and get good jobs after they graduate. If I accomplish that, this experiment will be a success.

People are looking for a university to challenge the education system and show an effective path for reform. SUST is going to face many problems. I am prepared to be the first to try true education reform, but maybe someone after me will be the first to succeed.

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