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# Internationalizing Chinese Higher Education: A Case Study of a Major Comprehensive University

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### Introduction

In the current era of globalization, the challenge of the market is the centre of attention. We are witnessing an intensification of a variety of important social, cultural, economic, and political developments that affect higher education. There has been a deepening of the shift from Keynesianism to neo-liberalism. Strong market forces and corporate management ideas have affected the way universities operate worldwide (Slaughter & Leslie 1997). It is not that universities must do the same with fewer resources; they must do different things and in different ways (Schugurensky 2003: 296).

At the same time, countries approach the international dimension of education differently. As a response to globalization, internationalization is changing the world of higher education, while its own process is being changed by globalization. It is closely tied to the specific history, culture, resources and priorities of the specific institutions of higher education (Yang 2002a). This chapter examines how Chinese universities are implementing internationalization in their cultural complexity and social contexts, using Zhongshan University (ZU) as an example.

This chapter therefore contributes to higher education internationalization literature where there is a shortage of empirical studies and a neglect of the links between the international and local environments (de Wit 1999). By demonstrating how internationalization is based on local circumstances within an international context and relies on this base to respond to external forces, this chapter aims to reveal how factors in particular situations shape the particular forms that globalization takes in specific institutions and provide the basis for resistance and countervailing tendencies. It is based on the researcher's longstanding personal working experience at a Chinese

university, and on some primary as well as secondary sources of information about the current situation in China.

A case study approach is used to gain an in-depth understanding of internationalization from within an individual university in its unique settings. ZU has been chosen for its officially designated status within the Chinese higher education system (Cheng 1998). The administration of higher education institutions in China follows the vertical and horizontal patterns of general public administration in that country (Cheng 1998). There are institutions all over the country that are administered, in the vertical system, by ministries of the central government. Another system is the horizontal system in which institutions within a locality are administered by the local authorities, mainly the provincial governments. Institutions in the centrally administered system, including ZU, tend to be more influenced by internationalization than those in the local systems. A detailed discussion of ZU's practices, therefore, sheds light on the general current state of internationalization in the mainstream of China's higher education.

The main method of data collection was semi-structured interviews conducted by the researcher at ZU. All interviews were conducted in Chinese, since language is a tool for constructing reality (Spradley 1979), more than simply a means of communicating about reality. The length of the interviews was flexible. Most of the interviews were tape-recorded. Of those who hesitated or declined to be recorded, the researcher asked for permission to take notes.

## **Globalization, Internationalization and Academic Capitalism**

Conceptually, this chapter deals with the relationship between globalization, internationalization and the university from the perspective of academic capitalism. These key terms are all complex and contested, and thus they are briefly explicated here.

### *Globalization*

The concept of globalization is complex and contested. It usually refers to the greater interconnectedness of the world (Waters 2001). Two main approaches to the concept of globalization can be distinguished. The first, politically neutral, approach defines globalization as an empirical reality in terms of the compression of time and space or 'action at a distance,' particularly associated with instantaneous communications technology. The second approach identifies globalization as an economic discourse actively promulgating a market ideology (Yang 2003a).

The concept of globalization spans separate yet overlapping domains (Sklair 1998). It is ultimately a process spearheaded by multinational financial and industrial conglomerates (Burbach, Núñez & Kagarlitsky 1997). The widely discussed globalization phenomenon fundamentally results from the globalization of economic life, which is largely the universalization of capitalism (MacEwan 1994). Today's globali-

zation is a market-induced process (Mittelman 1996), driven by market expansion (United Nations Development Programme 1999).

With a market mechanism at the core of globalization, one strand in the debate on globalization and higher education suggests that market regulation should reign supreme. These values, reflected in the neo-conservative and neo-liberal agendas, promote less state intervention and greater reliance on the free market, and more appeal to individual self-interest than to collective rights. Parallel with globalization is the shift from social to corporate welfare and commodification of cultural goods. Cultural and scientific endeavours become profitable activities, cultural goods become commercial products, the public is redefined as customers, the university becomes a provider, and the learner a purchaser of services (Schugurensky 2003: 294-295).

According to Scott (2000), globalization is the most fundamental challenge facing universities in their history. Most of the new changes are expressions of a greater influence of the market and the government over university affairs. Arguably the most significant is the worldwide drastic restructuring of higher education systems. At the core of these is a redefinition of the relationships among the university, the state, and the market, with a net result of a reduction of institutional autonomy (Schugurensky 2003: 293).

### *Internationalization*

The definition of internationalization has been the subject of much discussion. While globalization is radically reshaping the face of the university worldwide through market competition (Kishun 1998), internationalization is entailed. According to Knight (2003: 2), “internationalization at the national, sector, and institutional levels is defined as the process of integrating an international, intercultural, or global dimension into the purpose, functions or delivery of postsecondary education.” With the advancement of human understanding and the universality of knowledge as its fundamental focus, internationalization is principally different from globalization in that it refers to the reciprocal exchange of people, ideas, good and services between two or more nations and cultural identities (Yang 2002a).

In the Chinese case, while internationalization signifies an integration of the international community with China’s higher education community, the Chinese government regards it instead as a strategy to strengthen national economic competitiveness. For institutions, internationalization means the awareness and operation of interactions within and between cultures through their teaching, research and services functions. In practice, however, individual institutions often care most about their research strength and international ranking (Yang 2002b).

Internationalization is also perceived differently by scholars from different fields of academic enquiry. Most contemporary Chinese academics in social sciences and humanities place their focus on international scholarly communications and emphasize the increasing participation of Chinese scholars into the world academic community. In contrast, scholars from science and technology often respond more specifically, with concrete emphases on international similarities of science and

technology research paradigms and output (Yang 2003b). Despite the disparities, these views collectively demonstrate that in addition to concrete contents of courses, internationalization encompasses commitments, attitudes, global awareness and orientation.

### *Academic Capitalism*

The term academic capitalism was proposed by Slaughter and Leslie (1997: 8). According to them,

To maintain or expand resources, faculty had to compete increasingly for external dollars that were tied to market-related research, which was referred to variously as applied, commercial, strategic, and targeted research, whether these moneys were in the form of research grants and contracts, service contracts, partnerships with industry and governments, technology transfer, or the recruitment of more and higher fee-paying students. We call institutional and professional market or market-like efforts to secure external moneys *academic capitalism*.

The focus that has been placed by Slaughter and Leslie is on the political economy of the relationship between universities and external business firms. They are concerned with both the external environment and academic culture. Based on their empirical investigation, they argue that academic work has been fundamentally altered. The model of government-funded research has shifted from long-term programmes of 'pure' research under academic control to university-industry partnerships in which the direction of research is directly shaped by potential commercial applications. Universities are now more incorporated in industry, and their ethos shifts from the client welfare of their students to the economic bottom-line. The shift from full public funding to partial dependence on market sources of income undercuts the tacit social contract whereby universities have been treated as unique institutions (Marginson & Considine 2000).

Like Slaughter and Leslie (1997), Clark (1998: xvi) has produced work on where universities are heading. He maintains that universities have been pushed towards internal change because there is a deepening asymmetry between environmental demand and institutional capacity to respond. This 'imbalance' leads to 'institutional insufficiency.' Traditional ways become inadequate. In the new context, universities need to develop a capacity for selective and flexible response. Successful universities in this period are doing so.

As Marginson and Considine (2000) point out, institutional missions and structures have changed in the encounter between the world of the academy and the world of business and industry. It is the purpose of this chapter to examine, through an in-depth case study, how China's current practice mirrors what is happening in a range of other countries, and to draw on recent relevant literature to frame these issues.

## **A Brief History of ZU and its Early Internationalization**

In 1924, Dr. Sun Yat-sen, leader of the Chinese bourgeois democratic revolution of 1911, decided to set up two institutions of higher learning, one military, Huangpu Military Academy, and one civil, Guangdong University (GU). On 4 February of that year, Sun Yat-sen appointed Zhou Lu to the position of the director of preparation committee for the setting up of GU.

GU was built up on the basis of the amalgamation of three colleges: a national teachers' college and two provincial colleges of law and agriculture. The preparatory committee to establish GU consisted of many important personages from politics and academia at that time, including seven professors, five members of the Executive Committee of the National Party, two Senators, two university presidents, the Foreign Minister, the Mayor of Guangzhou, and the advisor to President Sun Yat-sen (Huang 1988: 4-5). This membership shows the importance and hope that Sun Yat-sen placed on GU.

GU began to recruit students in the Summer of 1924. Among the 1,067 students enrolled, seventy percent were from Guangdong and Guangxi, showing its strong provincial character. It had six faculties (arts, law, agriculture, science, engineering and medicine) and one research school. GU was changed into Sun Yat-sen (*Zhong-shan* in the Chinese phonetic alphabet, which is currently used in mainland China) University in memory of him, following his death in 1925.

Starting with its first President, ZU attached great importance to arts and humanities, and recruited the most respected scholars in their fields. Much was accomplished by various faculties in these early years. The Faculty of Law, for example, translated foreign works of law and economics, and contributed substantially to the early assimilation by China of Western learning. Its Geology department was the second oldest in China after Peking University. The department of Geography was the first built within a science faculty. A number of plant samples developed in the Biology department attracted worldwide attention (Guangdong Education Commission 1995).

ZU suffered great reverses during the national higher education reorganization in the early 1950s. This reorganization aimed to gear universities to the needs of national reconstruction (Ma 1950). During this period, ZU was effectively dismembered. Most of its faculties became independent professional colleges (Liang 1988: 89). It continued to experience frustrations caused by the combination of domestic and international politics of the Great Leap Forward from 1957, while further twists and turns during the Cultural Revolution meant it suffered calamitous, ruinous damage to its teaching and research functions.

ZU recovered rapidly in the 1980s, however. In October 2001, Sun Yat-sen Medical University merged with ZU. By April 2003, it was a multi-disciplinary university covering humanities, social science, natural and technology sciences, medicine and management, comprising 17 faculties and two colleges including 79 undergraduate, 166 Masters and 104 Doctoral programs, nine post-Doctoral centres, ten national and five provincial laboratories, and four (out of 103) national centres of

excellences in humanities and social science. In 2003 it had 11,850 staff numbers, with a fulltime enrolment of 1,970 Doctoral, 5,440 Masters and 17,100 undergraduate students, and 450 overseas students (Zhongshan University n. d.). The presence of post-doctoral centres is of particular significance here, because they indicate the highest academic research level in the particular field in China, and their establishment requires approval by the Minister of Education. These centres began to emerge within Chinese campuses and discipline or research areas in 1985, to make use of talented holders of doctoral degrees. Requirements for the establishment of post-doctoral centres are accredited doctoral programs, with well recognized and nationally leading research activities, and even stronger research resources and personnel than required for doctoral programs (see Hayhoe 1989, Gu 1991).

ZU was, at its early stage, quite outward looking. The Faculty of Agriculture, for instance, studied plants in Guangdong comprehensively in the late 1920s and expanded its research to plants that could be exploited economically. It compiled a series of annals of various plants in South China, and exchanged its samples with other Chinese universities and research institutes, as well as with those in Hong Kong, Singapore, North America, and European countries. Such contributions were widely applauded.

ZU's early achievement in internationalization was reflected by the structure of its faculty in the 1920s and 1930s. Many key figures in various departments were returned students or foreign scholars. Taking the Geology department as an example, its first head, concurrently the President of ZU, was a returned student from Germany with a Ph.D. in Geology from the University of Berlin (now the Humboldt University of Berlin). Succeeding heads were Dr. Ott Jacheg and Dr. Arnold Heim. Some of the teaching staff were from overseas such as Professor K. Krejei-Glaf. These foreign (in the Geology case German) teachers were already well known in world academic circles before arriving at ZU. Textbooks were foreign with some modification based on China's situation, and the instructional language was English.

Another example is the Geography department, whose first and second heads were both from Germany. The foreign professors, textbooks, facilities and instructional languages (mainly English) meant the department gravitated strongly towards international practice, and helped to improve teaching and research standards toward international levels.

The Faculty of Medicine initially followed the American style because a significant number of its teaching staff returned from the United States. Similar to the experience of Japanese, and to some extent, American universities in much the same period, it turned to the German model of medical education. Starting from the 1926-7 academic year, the major scholars were recruited from Germany. In 1927 alone, ZU's Faculty of Medicine had seven German professors. Most of them were well-known scholars, and internationally recognized as first class scientists in their fields. They used German, sometimes English, as instructional languages, wrote out prescriptions and medical records in German, and adopted German textbooks. Even the facilities

were German-styled. This echoed Tongji University, which Hayhoe (1984: 214) identifies as the earliest model of Chinese-German collaboration in higher education.

Campus-wide, among the 374 faculty from 1924 to 1937, 41 (11.0 percent) were foreign nationals. An overwhelming majority (71.0 percent) of their highest qualifications were earned from overseas. Of particular significance is the fact that the percentage of the American degrees (24.6 percent) was even higher than that of the Chinese (21.1 percent). It is also important to note that many of those overseas-earned qualifications were research higher degrees (Huang 1988: 168-170).

ZU's early internationalization was also demonstrated by its research work. In addition to the aforementioned international achievements in law, geology and medicine, its Research Institute of Education serves as another example. Founded in February 1928, the Institute had two divisions, focusing respectively on pedagogical and psychological studies. It had substantial research strengths in secondary and primary teaching, civic education, and educational administration and psychology, with a considerable record in comparative and international education studies. Many of its members had close links with the outside world. Thirteen of its 17 staff members were returned students (Editorial Committee of *The Annals of Guangdong Education* 1995: 116-117). These members were active in conducting international collaborative research projects with the American Moral Education Society, the International Bureau of Education in Switzerland, the International Association of Home Education in Belgium, and the International Federation for Adult Education in Britain, to name but a few. The Institute even hosted international students. One graduate from the University of Edinburgh, for instance, studied teacher education in English at the Institute in 1933.

The Institute and its members were also actively involved in academic activities organized by international professional associations and/or agencies, attended international conferences, and exchanged publications and information (Guangdong Education Commission 1995: 117). However, from the mid-1930s to the late 1970s, such international exchange and collaboration was thwarted repeatedly, due to the Japanese invasion (1937-45), the Chinese Civil War (1945-49), and the successive political turbulences of the Chinese Communist Party (1950s-70s).

## **Perceptions of Internationalization**

It should not be a surprise to see that while internationalization is becoming more accepted and more central to the provision of higher education in China, people are using the same term with very different definitions. This echoes the international situation: despite many attempts to formulate a 'tight' definition the core idea remains conceptually elusive. There is no simple, unique, or all-encompassing definition of internationalization (Knight 2003).

Also echoing the international situation, most people at ZU understand internationalization in terms of categories or types of activities (Knight & de Wit 1997). These include academic and extra-curricular activities such as: curricular

development and innovation; scholar, student and faculty exchange; area studies; technological assistance; intercultural training; education of international students; and joint research initiatives.

Indeed, as a result of the comprehensive changes in the contemporary world, internationalization could be interpreted from various perspectives. Nevertheless, my field study at ZU confirms the finding from my previous studies on higher education internationalization in various parts of China that understanding of internationalization relies heavily on the particular socio-cultural context (see, for example, Yang 2002b, 2003b).

My fieldwork at ZU shows that in theory most of its members accept that the concept of *Jiegui* equates with, or at least very much relates to, internationalization in the field of higher education. *Jiegui* was a catchword in the early 1990s when “China decided to adopt a market economy. It means linking up China’s practices with mainstream international trends. Thus the central focus of *Jiegui* is to regulate Chinese practices according to international criteria.

In practice, however, people at ZU had very different interpretations of internationalization. The most striking difference lies between higher education researchers and the academic staff from other areas. Scholars of educational studies tend to see internationalization as an unavoidable part of higher education development. The rationale they provided was the ‘inner logic’ of global higher education development, which they expressed as the common ground of various higher education systems in different countries, that makes international communication necessary and possible, and transcends geographical boundaries and social systems. Thus specialists from higher education in different countries need to communicate with each other, and borrow from each other’s experience. According to a professor of higher education at ZU, this is what internationalization of higher education is all about. With an evident international perspective based on his experience of comparative higher education studies for many years, he said:

Higher education has its own logic of development. Higher education systems in different countries with different social systems and ideologies share certain common ground. The shared part is international, and is indeed a heritage of the whole human society. (Interview ZU/1)

While such a view has its merits and is the most influential in effect within Chinese higher education, it is one-sided. Citing the contemporary higher education reforms as evidence, these scholars argue for the widespread use of the market model for higher education. It needs to be pointed out that such a notion should be put in the context that among Chinese comparative higher education scholars little attention has been paid to analysing such market models, unlike in major English-speaking countries (Hayhoe 1989: 128). The persistent commitment in many other, especially European, societies to higher education as a public good that should not be provided



on the basis of an individual exchange agreement between a producer and a consumer has regrettably largely been ignored.

The above opinion, however, is not most popular among ZU administrative and academic staff, of whom a majority view internationalization as a synonym for enhancing academic strength by using international standards. As the Director of Academic Affairs Office remarked, the meaning of internationalization was firstly to attain the international academic levels, which ZU has targeted. A distinguished scholar himself, and one of the key figures in the policy-making at ZU, the Director argued:

The reason for various understandings of internationalisation is that there are many universities of various sorts in the world: American, British, German, Japanese, and so forth. People have different opinions about which model should we link to. However, academic level is indisputable. Mathematics research, for example: for our University, a leading finding in China is almost meaningless, (it is) only when it is acknowledged as internationally pioneering that can it have real value, and our mathematics research is then truly internationalised. (Interview ZU/3)

While he also mentioned that internationalization of higher education should encompass some administration, management and the training of student with skills, as well as knowledge and perspectives of other societies and cultures, he strongly insisted that academic strength was the most important part. According to him, in order to develop scholarship, a university needs to have frequent exchanges with its counterparts in foreign countries. Also evident was that the ‘international standards’ he referred to were in fact American. Here again, an obvious inclination to the American model and looking to the United States as the ‘gold standard’ for higher education can be discerned (Altbach 1989: 19).

Another point at issue is the relationship between internationalization and institutional identity. In the present era of increased globalization, there is a constant threat to the healthy survival of national identities and cultures of smaller and/or developing nations, the homogenization or ‘McDonaldization’ of cultures. How to preserve and promote national culture is a common question faced by non-Western countries, which often consider internationalization as a way either to respect cultural diversity and counter-balance the perceived homogenizing effect of globalization, or to expand the influence of their traditional cultures.

The relationship has therefore long been a concern of scholars in international relations in education. Based on her longstanding observation, rich knowledge and actual experience of educational development within China and internationally, Ruth Hayhoe expressed her concern about whether Guangzhou universities would sacrifice their regular duties of serving the needs of local society to international activities, during an interview in which I consulted her *en route* to China to do my field study.

The relationship, however, has never been a question in today’s China. As reported in other studies (see, for example, Yang 2002b, 2003b), Chinese scholars

almost unanimously agree that there are no conflicts between internationalization and institutional relevance to local demands, despite the fact that there are very different understandings of what these characteristics are (Yang 1998). There is an evident perception of convergence in the relationship between university internationalization and the building of institutional capacity at national, local and institutional levels.

Such an attitude needs to be interpreted in a context that opening to the outside world has been officially designated as a national policy. The real issue is that few faculty or university administrators have made efforts to distinguish integration with the international (in practice, the Anglo-Saxon) practice from conformity to it, a task that becomes especially pressing against a backdrop of globalization.

As noted in other studies (Hayhoe 1989, Yang 1998), the Chinese are well aware that the Open Door policy adopted in 1978 continues to be crucial to China's higher education development. It is thus comprehensible that ZU has adopted its own open door policy to actively maintain contacts with the outside world. Furthermore, its leaders regard such a policy as of great benefit, enabling the institution to learn from others' strong points, in order to offset its own weaknesses. In their judgement, ZU will certainly lose if it is not integrated with international practice.

Meanwhile, others argue that higher education operations should be based only on the actuality of the national, local and institutional conditions. Xia Shu-zhang, the former deputy President, with his Doctorate from Harvard University in the 1940s, argues:

Chinese characteristics are geared to the actual circumstances of Chinese society. Our memory of hardships experienced, due to the mechanical copying of foreign models, is still fresh. The Chinese characteristics of higher education are not at all in conflict with its integration with international trends. However, one question is spelled out: with which international trends does Chinese higher education have to be in line? ... Internationalization is not a simple term. Its meanings vary depending on the specific circumstances: aims, contents, effects, and results. In higher education, the principle is that internationalisation must lead to mutual understanding, friendship, and progress. The integration of China's higher education with world community is not a simply one-way phenomenon (Xia 1994: 18-19).

While none of the interviewees at ZU thought internationalization was in conflict with Chinese characteristics, their explanations of the relationship differed. Some had more concrete reasons in mind. As a university in Guangzhou in Southern China, ZU has many unique research topics and foci. As one interviewee explained, ZU naturally attached priorities to research issues relevant to South China (such as plants, environment, regional culture and the local economy). By exploiting these advantages, ZU could take a lead in certain academic fields of study in world scholarship. In this sense, it was argued that international activities and the unique local/institutional characteristics strengthen rather than stifle each other.

Another interviewee also listed the unique plants, animals and climate that were closely linked to the region and helped ZU to establish special programs. He pointed out that while it was more difficult for subjects such as mathematics and physics to have certain South China features, some research characteristics in certain aspects of those subjects could still possibly be fostered in the process of regional development, and indeed be seen as special characteristics. An example cited was spectroscopy, particularly in the field of hypervelocity. Research on optics is extremely competitive in Guangzhou: in addition to ZU, South China University of Technology, Jinan University, and South China Normal University all had Doctoral programs in optics. Nevertheless, optics research at ZU had its own strong identity, which had resulted in the establishment of a national key optics laboratory. This proved that even in natural sciences, unique characteristics could still be developed.

The above example provides a case of how research strength at the international level is therefore a necessary accompaniment to the needs of local characteristics. In some cases, the more unique are local/institutional characteristics, the higher are the level of their academic standards. Such optimism, however, does not always have sufficient basis, as the management of the global and local could be extremely problematic in practice. This reminds us of the old story in the nineteenth century when China expressed blind confidence that it could contain 'evil influences' from outside in the face of substantial influence of the Western powers upon China. It also suggests that most Chinese academics are naïve about being able to prevent unintended effects of foreign influences, and are ignorant of the darker side of globalization. Thus, they are less prepared for managing the hegemonic neo-liberal policy discourse and its impacts on higher education.

## **Internationalization Achieved**

Internationalization is high on the agendas of national governments, international bodies, and institutions of higher education (de Wit 1999). Correspondingly, ZU has placed greater emphasis on international co-operation and exchange in all areas, and developed its own strategies to internationalize research and teaching.

### *International Communications*

In the overall history of international relations in China's higher education, ZU's impressive accomplishments began early. In the 55 years since the foundation of the People's Republic of China, international communication at ZU reached its peak after China adopted the Open Door policy in 1979. In Spring 1979, a delegation of ZU teachers visited the University of Hong Kong, Chinese University of Hong Kong, and Hong Kong Polytechnic, while another delegation from ZU visited the University of California system, Harvard University, and the University of Nebraska, thereby opening up new prospects, not only for ZU, but for many other Chinese universities.

This second delegation was the first Chinese academic delegation to the United States since the two countries established diplomatic relations in 1972.

An equally important chapter occurred in September 1980, when ZU received the first academic delegation from the United States – from the University of California system – since the formal establishment of Sino-American diplomatic relations. The two universities signed an educational exchange agreement that stipulated faculty and information exchange as well as joint research. One of the direct results of this collaboration between the two universities was the Guangzhou English Training Centre based at ZU, which provided those who were going abroad for further study, training or collaborative research, with functional English.

After establishing contact with the University of California, ZU adopted a dynamic attitude toward international communications. In the past two decades, it has, in succession, signed agreements with some one hundred universities and other educational institutes in more than 20 countries including Australia, Belgium, Canada, Finland, France, Germany, Japan, Philippines, Russia, South Korea, Spain, Sweden, Switzerland, Thailand, the Netherlands, the United Kingdom, the United States, Vietnam, and Yugoslavia (as well as Hong Kong, Taiwan and Macau), and has frequent exchange programs and activities with them. ZU became a member of the International Association of Universities in 1985 (Zhongshan University Office of the President 1998: 22). It now routinely invites scholars from overseas, has an increasing number of internationally collaborative research projects, and recruits both honorary and guest professors from overseas.

A significant part of ZU's international communications consists of sending its personnel abroad to study for degrees, give lectures, conduct collaborative research, attend conferences, and to discuss educational exchange issues. The extent of such activities has continued to increase. In 1986, ninety faculty were sent overseas for further study and training, 38 attended international conferences held abroad, three were invited abroad to teach, and 139 went overseas for short-term lectures and/or academic visits (Liang 1988: 97). In 1993, 409 faculty were sent overseas for academic conferences, training, visits, or to give lectures, and ZU hosted 92 scholars and 898 visitors from overseas (Zhongshan University 1995: 58).

Hosting international conferences has proven to be an effective way to enhance international communications. ZU is determined to continue this endeavour, in order to attract international scholars to ZU. Since 1979, themes of the conferences have covered various academic areas from Sun Yat-sen study and anthropology to personal computing and geography. Some of them were jointly hosted by ZU and other institutions of higher education overseas, particularly in Hong Kong.

These external contacts also provide ZU with international financial support, which was viewed as a 'real need' by most interviewees. The support has contributed significantly to improved teaching and research. In addition to assistance from international agencies, especially the World Bank and the UNESCO, due largely to its historical prominence, ZU has benefited greatly from overseas contributions, particularly from its alumni. International donations have resulted in modern buildings

being established, with the latest equipment. Its graduates have also established foundations in Hong Kong, Macau, North America, Europe and Australia to support ZU in various ways.

*Appraisals in Different Contexts*

Despite this impressive list of achievements in international communications, ZU members reported a generally similar assessment: it is still far from adequate. Such consensus aside, however, people from various fields have different assessments of the achievement in their own specialities. These differences result from the different perspectives utilized to evaluate the achievement. No matter what the frame of reference is, however, an accurate overall assessment is, as one interviewee suggested, difficult. When compared to its development from the 1950s to the 1970s, ZU has obviously made remarkable progress in international communications. However, as another interviewee pointed out, overseas travel for faculty remains quite inadequate. Library collections of foreign language books and journals are far from sufficient, especially due to increasing prices and financially straitened circumstances. All these stifle the internationalization process at the University.

ZU respondents noted almost unanimously that the acknowledgement of an international dimension was clearly expressed in the ZU mission statement, and internationalization at ZU is well ahead of the majority of Guangzhou universities. This is largely due to the favourable conditions at ZU. First, it has a long history, and its former graduates have long occupied positions of influence both within and outside China, something that has helped ZU establish international links. Second, its location in Guangdong, a well-recognized southern gateway to China, with many foreigners coming and going (Yang & Welch 2001), has provided ZU with substantial educational exchange opportunities. Moreover, Guangzhou is next to Hong Kong, one of the world's most established centres of information and a well reputed bridge between the East and the West (Bray 1999: 2), providing ZU with more access to first class scholars and their academic work (Postiglione 1998, Yang 2003c)

ZU's superiority in this aspect was clearly expressed in an example given by an interviewee. He reported that, at the electronic forum based on ZU's homepage, an academic with a Doctorate complained of his inadequate housing at ZU. He subsequently received a letter from Guangxi, asking him to transfer to Guangxi University where he was offered a three-bedroom apartment. The teacher refused the offer because he appreciated the extent of internationalization at ZU, and was prepared to await a chance to travel abroad.

Internally, striking differences exist among various disciplines. The overall picture is that internationalization is much better implemented in the natural sciences and engineering than in arts, humanities, and some social sciences. In some science departments, international contacts have become, in one interviewee's words, "extremely popular." This is mainly because these departments are much more likely to be successful in winning external funds, and thus have more resources to attract a higher proportion of young faculty who have recently returned from overseas with

higher degrees. Their personal contacts, fresh knowledge, and international links, coupled with newly purchased teaching and research equipment and laboratory facilities, particularly with the assistance of a World Bank loan (World Bank 1997), have enabled rapid internationalization in these departments.

A very different scene is presented in arts and humanities, and some social sciences. One interviewee reported that, because of the shortage of funds, ZU's library collection of books and journals was woefully inadequate, let alone chances to travel abroad. Because of the inherent connection of these subjects with prevailing political ideologies (Altbach 1998) and their seeming irrelevance to short-term economic benefits, and partly as a result of the lack of financial resources, people in these areas seemed much more reserved, indeed overcautious, in their pursuit of internationalization than their colleagues in sciences and engineering. Equally, ZU leaders are much less active in directly fostering internationalization activities in these areas. Taken together, these factors combine to reveal a dispirited picture of internationalization among arts, humanities and social sciences at ZU.

The Institute of Higher Education at ZU, for example, was founded in 1982. It had seven researchers in 1998, and its composition was weak compared to that in the 1920s and 1930s. In sharp contrast to the natural sciences and engineering fields, no one from the Institute had any overseas study or training experience. By the late 1990s, there were no personnel exchanges, no collaborative research, and no publications in international journals. Even attendance at overseas conferences was extremely limited. Only the former and current Directors had occasionally attended conferences in Hong Kong. This situation generally delineates the difficulty faced by most arts, humanities and some social sciences, which were, and have long been, one major part of ZU's strength. While several interviewees from engineering expressed their complacency with the contributions to improving their "working and living conditions" made by their external funds, respondents from basic research often felt helpless with less public money and with their less control over the little money they had received.

This demonstrates the impact of globalization on higher education: employing economic standards as benchmarks leads to a tendency to overemphasize the practical, technical value of higher education. University achievements have been increasingly simplified to be deemed equivalent to applied research outputs. Within a context in which it is much easier to find funding for research into a new dandruff shampoo than it is to try and develop a cure for malaria (Bloom 2002), there is a real danger of the erosion of important values and traditions such as the social mission of the university, its institutional autonomy and academic freedom, its pursuit of equity and accessibility, or its disinterested search for the truth (Schugurensky 2003: 308).

Such diversity among disciplines and the different perceptions of internationalization across disciplines echo international findings (Knight & de Wit 1997). The meaning of internationalization, the means to implement it, and the extent of internationalization policies all depend on the specific subject. The general situation is that 'hard' sciences usually attain higher levels of internationalization than the 'soft'. Hence developments in the 'hard' sciences like engineering tend to be much more

emphasized, while humanities and social sciences, and to a lesser extent medicine, are very much under-represented in internationalization programs. This aspect has its impact on institutional, and in particular on departmental, policies and strategies for international education (de Wit & Callan 1995).

These disciplinary disparities have a direct effect on internationalization programs in various subjects. As shown by the ZU experiences, there are significant opportunities in science, engineering and technology for increasing present levels of collaboration between overseas universities and those in China that already have well-developed expertise in these fields. The extent of internationalization is much less in humanities, social sciences and education, due to the more varied ideologies, paradigms and discourses inherent in these fields, and higher dependency on language to convey their meanings (Yang 2003d). Opportunities to co-operate with international partners or win grants from external resources are much more limited (Zweig & Chen 1998).

### **Basic Research in Difficulty**

With the central focus of internationalization on international understanding, a country's unique history, indigenous culture(s), resources, priorities, and so on shape its response to and relationships with other countries. National identity and culture is then key to internationalization. It is in this sense that basic research plays a crucial role in promoting internationalization. As a public good itself, basic research often needs substantial investment to deliver long term, but highly uncertain, benefits. The market, however, is not good at funding such research on its own (Bloom 2002: 6).

ZU, however, has focused on basic theoretical studies since its early days. The separation of its engineering, agriculture and medicine departments in the 1950s further strengthened the central role of basic research as its focus and advantage. It has made every endeavour to maintain strengths in basic research. One major task is to undertake key research projects. In recent years, ZU has undertaken some 100 national key projects including the National 863 High-Tech Development Plan and other national basic research projects, as well as 60 selected projects as priority to tackle scientific and technological problems during the Seventh (1983-87) and Eighth (1988-92) Five-Year Plans. From 1986-1992, science research at ZU won 434 prizes from the State Natural Science Foundation Committee, the then State Education Commission and Guangdong Province Government (Zhongshan University 1994: 6).

ZU has also increased its scientific publications substantially. In 1982, ZU ranked third among all Chinese higher education institutions, winning five first prizes from the then State Education Commission. From 1987 to 1992, 4,271 research articles from ZU were published in scientific journals, of which 783 were in internationally refereed journals published overseas, 132 research findings were selected for national prizes (one first prize, three second prizes, eight third prizes, and four fourth prizes), and ministerial/provincial prizes (one special prize, nine first

prizes, forty-six second prizes, and sixty-one third prizes) (Zhongshan University 1995: 56-57).

Internationally, based on the statistics provided by the *Science Citation Index* (SCI) of the Institute for Scientific Information, by university affiliation of authors, 92 scientific articles produced at ZU were published in internationally recognized scholarly journals in 1996, 17 more than that in 1995 (an increase of 23 per cent), a feat which placed ZU the thirteenth among all Chinese universities. The number of articles that were both included and cited by SCI reached 87 (ranked 14<sup>th</sup> in China), while the *Engineering Index* included 63 articles by ZU staff (ranked 29<sup>th</sup> in China).

Obvious achievements have also been made in arts, humanities and social sciences, albeit to a much lesser extent, reflecting perhaps the great difficulties in publishing Chinese-based social science research overseas (Zhong 1998, Yang 2003d). From 1979 to 1993, 1,194 books were published including textbooks, reference materials, and translation works. The total number of research articles published reached 9,781 over this period. During the Eighth Five-Year Plan, ZU undertook 132 research projects (of which 28 were at national level), 40 projects were granted by the then State Education Commission, and 39 were at the provincial level, respectively 150, 143 and 156 per cent more than those in the Seventh Five-Year Plan (Zhongshan University 1995: 58). In order to take full advantage of Guangdong's favourable conditions (Vogel 1989), ZU established a number of research centres such as the Centre for Pearl River Delta Studies, the Institute of Hong Kong and Macau Studies, and the Centre for Township Governments in Guangdong.

However, educational quality is increasingly measured by economic standards (Neave 1988, Mok 2000). In the context of globalization, China's higher education is compelled to become increasingly responsive to economic needs, accountable for its financial resources, entrepreneurial and competitive (Min 1999, Postiglione & Jiang 1999). As such, ZU has readjusted its academic programs and research priorities and shifted a majority of its strength to applied and development research to extract maximum economic benefits. New practical programs have been established to promote dissemination and application of new technologies to meet market needs.

In techno-science and fields closely involved with markets, particularly international markets, research products expand beyond national boundaries and intellectual property rights are involved on a global basis. Researchers thus have to ensure their own research product is internationally recognized. Private sector enterprises are closely related to this research market, both through their own research activities and through their search for newly patented technologies. This provides a strong incentive to ZU researchers in these fields to rush the dissemination of their research products into a well-recognized international market

Although relevant and mutually reinforcing to some extent, basic research is different from applied studies, and belongs to a different type of academic inquiry. ZU's shift of academic focus towards more applied areas is a direct result of the existing pressures because many in government and in academic administration feel that much of the basic research and analysis reported in academic journals is not



relevant to day-to-day problems. Decision-makers increasingly eye market needs, which are both changeable, and often misleading, particularly in China where the implementation of a free market economy itself has just begun (Guthrie 1999).

Therefore, some basic research in arts, humanities and some social sciences has been eroded. Taking philosophy as an example, ZU had traditionally been one of the best in China especially in the study of the history of Chinese philosophy, and had some nationally distinguished scholars. However, in response to financial constraints, many such faculty have busied themselves working for factories and companies to earn extra income, thus their teaching and research responsibilities in the Philosophy department have been weakened considerably.

The overemphasis on economic benchmarks to assess different specialities is problematic. Such a climate is more favourable to applied studies, while basic theoretical inquiry often suffers. Resources for basic research have not kept up with needs. Academic infrastructure, including libraries and laboratories, has been starved of funds. Research quality and academic morale have been affected. As governmental funds for basic research reduce substantially, the current situation is difficult for universities like ZU. Various interviewees reported that their conditions for teaching and research had deteriorated. If the situation continues in coming years, it is not hard to foresee that research in the basic natural sciences, arts, humanities, and social sciences, which comprise the traditional academic strengths of ZU, will be seriously compromised.

According to many respondents, both within and outside basic research, it appears that ZU is obligated to the extra-academic market. The current difficult situation of basic research demonstrates the decreasing degree to which China's higher education is beholden to the public good. It is not surprising to see that visions contending that the university should be the critical consciousness of society, the engine of new knowledge, and the guardian of the long-term interest of the community are being displaced (Schugurensky 2003: 308).

## **Concluding Remarks**

ZU began its journey to internationalization early in its initial period. Indeed, compared to its achievements in the 1920s-1930s, it fails to measure up to its strength in the past, at least in some aspects of internationalization, including foreign faculty recruitment and the proportion of highest qualifications earned by its faculty. In some areas, particularly arts, humanities and social sciences, it is relatively more isolated from the international community than it was some 70 years ago.

The case of ZU parallels the national scenario in China that universities are increasingly required to be responsive to the market-oriented economy. By the late 1990s, through implementing a series of policies of decentralization and marketization, the Chinese government had initiated fundamental changes in the orientation, financing, curriculum, and management of higher education (Agelasto & Adamson 1998). As Mohrman (2003: 24) notes, while Chinese scholars were traditionally at the

top of the status hierarchy and merchants near the bottom, today's Chinese scholars have become merchants in order to support the academic enterprise. The worry "is the risk of going too far in responding to market demands," and "traditional academic values are being marginalized in the relentless pursuit of money."

The practises at ZU also echo what is happening internationally (Clark 1998): a number of recent changes have affected the way universities work and the work that academics do (Slaughter & Leslie 1997). Universities worldwide are being urged to behave in more competitive and enterprising ways. Universities develop their responses to global practices forced upon them by globalizing politicians and bureaucrats (Currie & Newson 1998). Within these processes, forces of internationalization and globalization pull in different directions. It is increasingly difficult for universities to reconcile the competing agendas (Welch, 2003). This synergy of the global and the local is not necessarily always the case, and indeed, is often problematic in practice. Successes depend heavily on the specific institutional circumstances (Yang 2000), including institutional infrastructure, policy priorities, and faculty profile.

ZU's experience indicates possible negative effects caused by the introduction of business practices into universities and the potential threat to traditional university values. This is again in line with the situation in other parts of the world, where many academics believe that intellectual traditions are being forcibly displaced by market directives (Coady 1996), and a market approach to international collaboration and exchange has been a trend in higher education (Knight & de Wit 1997, 1999), ZU now has to compete globally for research that can be transformed into marketable goods and services. This leads to a notion that simply regards internationalization as attaining world-class academic strength, which, in reality, is again simplified as research, confined overwhelmingly to science and engineering, and measured against clearly defined global standards. Such an understanding inflicts particular damage upon some academic fields that cannot bring immediate economic benefits such as arts, humanities and some social sciences that have long constituted an integral part of ZU's prestige.

At sector level, internal differentiation among various disciplines is becoming strikingly evident. This aggravates the tension between basic theory researchers and those from technological sciences. It becomes an even more severe problem considering the fact that an overwhelming majority of institutional and ministerial leaders in China are from the latter, and traditionally show scant concern for the social sciences. Even within one institution, the internationalization of research is not the same in each faculty. In humanities, social sciences and education, domestic considerations are given more weight than in the faculty of natural sciences, technology and medical sciences, which placed a larger importance on the dissemination of research results beyond the national boundary. The internationalization of higher education is indeed regional within universities, just as within the country overall.

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