

**Internationalising Chinese Higher Education: A Case Study of One Major
Comprehensive University**

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Introduction

In the current era of globalisation, the challenge of the market is in 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 the ideas of corporate management have affected the way universities operate worldwide (Slaughter and Leslie 1997). It is not that universities must do the same with fewer resources but 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 globalisation, internationalisation is changing the world of higher education, while its own process is being changed by globalisation. 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 internationalisation in their cultural complexity and social contexts, using Zhongshan University (ZU) as an example.

This chapter therefore contributes to higher education internationalisation 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 internationalisation 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 globalisation 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 internationalisation from within an individual university in its unique settings. ZU is chosen for its officially designated status within the Chinese higher education system (Cheng 1998), which makes it one of the most influential within the system. A detailed discussion of its practice sheds light on the general current state of internationalisation in the mainstream of China's higher education.

The main method of data collection is the interview conducted by the researcher at ZU. Semi-structured interviews were preferred (Punch 1998, Davies 1997). All interviews were conducted in Chinese, as is cogently argued, language is a tool for constructing reality (Spradley 1979), more than a means of communication 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.

Globalisation, Internationalisation and Academic Capitalism

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

Globalisation

The concept of globalisation is contradictory and contested. It usually refers to the greater interconnectedness of the world (Waters 2001). Two main approaches to the concept of globalisation can be distinguished (Yang and Vidovich 2002). The first, politically neutral, approach defines globalisation 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 globalisation as an economic discourse actively promulgating a market ideology (Yang 2003a).

The concept of globalisation spans separate yet overlapping domains (Sklair 1998). It is ultimately a process spearheaded by multinational financial and industrial conglomerates (Burbach *et al.* 1997). The widely discussed globalisation phenomenon fundamentally results from the globalisation of economic life, which is largely the universalisation of capitalism (MacEwan 1994). Today's globalisation is a market-induced process (Mittelman 1996), driven by market expansion (United Nations Development Programme 1999).

With a market mechanism at the core of globalisation (Yang 2003a), one strand in the debate on globalisation and higher education suggests that market regulation should reign supreme. These values, reflected in the neoconservative 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 globalisation 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, 294-5).

According to Scott (2000), globalisation 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 relationship among the university, the state, and the market, with a net result of a reduction of institutional autonomy (Schugurensky 2003, 293).

Internationalisation

The definition of internationalisation has been the subject of much discourse. While globalisation is radically reshaping the face of the university worldwide through market competition (Kishun 1998), internationalisation is entailed. According to Knight (2003, 2), “internationalisation 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, internationalisation is principally different from globalisation 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 internationalisation signifies an integration with the international community to China's higher education community. The Chinese government regards it differently: a strategy to strengthen national economic competitiveness. For institutions, internationalisation 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).

Internationalisation 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 emphasise 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 internationalisation 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 and Considine 2000).

Like Slaughter and Leslie, 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 in selective and flexible response. Successful universities in this period are doing so.

As Marginson and Considine (2000) correctly 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 in a concrete flesh-and-blood form, 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 Internationalisation

In 1924, in order to strengthen the revolutionary force,¹ Dr. Sun Yat-sen decided to set up two institutions of higher learning, one military, Huangpu Military Academy, and one civil, Guangdong University (GU). On 4 February, 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 shows how much importance and hope that Sun Yat-sen placed on GU.

GU began to recruit students in Summer 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 (*Zhongshan* 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 early assimilation by China of Western learning. Its Geology department was the second oldest in China only to Peking University. The department of Geography was the first one 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 reorganisation in the early 1950s,² indeed 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 its 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. On 26 October 2001, Sun Yat-sen Medical University merged into 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 2 colleges including 79 undergraduate, 166 Masters and 104 Doctoral programs, 9 post-Doctoral centres,³ 10 national and 5 provincial laboratories, and 4 (out of 103) national centres of excellences in humanities and social science. It has 11,850 staff numbers, with a fulltime enrolment of 1,970 Doctoral, 5,440 Masters and 17,100 undergraduate students, and 450 overseas students (<http://www.zsu.edu.cn/aboutus/xxjj.htm> retrieved 29 September 2003).

ZU was, at its early stage, fairly outside-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 contribution was widely applauded.

ZU's early achievement in internationalisation was evidently reflected by the structure of its faculty. 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. 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, it had seven German professors. Most of them were well-known scholars, and internationally recognised as the 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 (10.97 percent) were foreign nationals. An overwhelming majority (71 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, 168-70).

ZU's early internationalisation was also demonstrated by its research work. In addition to the aforementioned international achievements in law, geology and medicine, its Research Institute of Education can serve 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, 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 seventeen staff members were returned students (Editorial Committee of *The Annals of Guangdong Education* 1995, 116-7).

These members were active in conducting internationally 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 organised by international professional associations and/or agencies, attended international conferences, and exchanged publications and information (Guangdong Education Commission 1995, 117).

From the mid-1930s to the late 1970s, such international exchange and collaboration was, on balance, thwarted repeatedly, due to the Japanese invasion (1937-45), the Chinese Civil War (1945-9), and the successive political turbulence of the Chinese Communist Party (1950s-70s).

Perceptions of Internationalisation

It should not be a surprise to see that while internationalisation 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 internationalisation (Knight 2003).

Also echoing the international, most people at ZU understand internationalisation in terms of categories or types of activities (Knight and 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, internationalisation could be interpreted from various perspectives. Nevertheless, my field study at ZU confirms the finding from my previous studies on higher education internationalisation in various parts of China that understanding of internationalisation 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 *Jiegui* (to connect tracks) equates with, or at least very much relates to, internationalisation in the field of higher education.⁴ In practice, however, people at ZU had very different interpretations of internationalisation.

The most striking difference lies between higher education researchers and the academic staff from other areas. Scholars of educational studies tend to see internationalisation 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 internationalisation 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 point out that such a notion should be put in a context that among Chinese comparative higher education scholars there has been a huge imbalance between the attention paid to the practice in major English-speaking countries and that in the rest (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 been ignored largely.

The above opinion, however, is not most popular among ZU administrative and academic staff, of whom a majority view internationalisation as a synonym for enhancing academic strength by using international standards. As the Director of Academic Affairs Office expressed, the meaning of internationalisation was firstly to attain international academic level, 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 internationalisation 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 looking to the United States on the 'gold standard' for higher education can be discerned (Altbach and Selvaratnam 1989, 19). Another point at issue is the relationship between internationalisation and institutional identity. In the present era of increased globalisation, there is a constant threat to the healthy survival of national identities and cultures of smaller and/or developing nations: the homogenisation, also referred to the 'MacDonaldisation' of cultures. How to preserve and promote national culture is a common question faced by non-Western countries, which often consider internationalisation as a way either to respect cultural diversity and counter-balance the perceived homogenising effect of globalisation, 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 (Yang 2002b).

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 internationalisation 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 convergence in the relationship between university internationalisation 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 of them 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 globalisation.

As noted in other studies (Hayhoe 1989, Yang 1998), the Chinese are well aware that the Open Door policy continues to be crucially important to China's higher education development.⁵ 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 a 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, as with many other social activities, higher education operation 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? ... Internationalisation 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, 18-9).

While none of the interviewees at ZU thought internationalisation 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 put, 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: although research on optics was 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, Optics research at ZU, however, 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 West powers upon China. It also tells that most of Chinese academics are naïve about being able to prevent untargeted effects of foreign influences, their ignorance of the darker side of globalisation, and thus, their less preparedness for managing the hegemonic neo-liberal policy discourse and its impacts on higher education.

Internationalisation Achieved

At the dawn of the new millennium, internationalisation 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 internationalise research and teaching.

International Communications

In the fifty 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 the overall history of international relations in China's higher education, ZU's impressive accomplishments began early. In Spring 1979, a delegation of ZU teachers visited the University of Hong Kong, Chinese University of Hong Kong, and Hong Kong Polytechnics. Shortly after this, in April 1979, 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 was the first Chinese academic delegation to the United States, after 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 - after the formal establishment of Sino-American diplomatic relations. The two universities signed an educational exchange agreement which 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 provides those who are 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 twenty countries including Australia, Belgium, Canada, Finland, France, Germany, Japan, Philippine, 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, thirty-eight 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 contrast, in 1993, 409 faculty were sent to overseas for academic conferences, training, visits, or to give lectures, and ZU hosted ninety-two 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 issues of various academic areas from Sun Yat-sen study, 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 former 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 utilised 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. Foreign language books and journals are far from sufficient, especially due to increasing prices and financially straitened circumstances. All these stifle internationalisation 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 internationalisation at ZU is well ahead of the majority of Guangzhou universities. This is largely due to the favourable conditions at ZU. Firstly, it has a long history, and its former graduates have long occupied positions of influence both within and outside China, something which has helped ZU establish international links.

Secondly, its location in Guangdong, a well-recognised Southern gate of China, with many foreigners coming and going (Yang and Welch 2001), has provided ZU with more educational exchange opportunities. Moreover, Guangzhou is next to Hong Kong, one of the world best 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 internationalisation at ZU, and was prepared to await a chance to travel abroad.

Internally, striking differences exist among various disciplines. The overall picture is that internationalisation 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 internationalisation in these departments.

An utterly 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 were woefully inadequate, let alone chances to travel abroad or attend conferences overseas. Because of the inherent connection of these subjects with prevailing political ideologies (Altbach 1998), the seeming irrelevance to short-term economic benefits, and partly as a result of the lack of the financial resources, people in these areas seemed much more reserved, indeed overcautious, in their pursuit of internationalisation, than their colleagues in sciences and engineering. Equally, ZU leaders are much less active in directly fostering internationalisation activities in these areas. Taken together, these factors combine to reveal a dispirited picture of internationalisation 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, no one from the Institute had any overseas study or training experience. By the late 1990s, there was no personnel exchange, no collaborative research, and no publication 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 globalisation on higher education to employ economic standards as benchmarks leading to a tendency to overemphasise 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), the 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 is real (Schugurensky 2003, 308).

Such diversity among disciplines and the different perceptions of internationalisation across disciplines echo international findings (Knight and De Wit 1997). The meaning of internationalisation, the means to implement it, and the extent of internationalisation policies all depend on the specific subject. The general situation is that 'hard' sciences usually attain higher levels of internationalisation than the 'soft'. Hence developments in the 'hard' sciences like engineering tend to be much more emphasised, while humanities and social sciences, and to a lesser extent medicine, are very much under-represented in internationalisation programs. This aspect has its impact on institutional, and in particular on departmental, policies and strategies for international education (De Wit and Callan 1995).

These disciplinary disparities have a direct effect on internationalisation programs in various subjects. As shown by ZU experience, 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 internationalisation 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 and Chen 1998).

Basic Research in Difficulty

With the central focus of internationalisation on international understanding, a country's unique history, indigenous culture(s), resources, priorities, *etc* shape its response to and relationships with other countries. National identity and culture is then key to internationalisation. It is in this sense that basic research plays a crucially role in promoting internationalisation. As a public good itself, basic research often needs huge 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 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 one hundred national key projects including the National 863 High-Tech Development Plan and other national basic research projects, as well as sixty selected projects as priority to tackle scientific and technological problems during the Seventh (1983-7) 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 (one first prize, three second prizes, eight third prizes, and four fourth prizes), and ministerial/provincial (one special prize, nine first prizes, forty-six second prizes, and sixty-one third prizes) prizes (Zhongshan University 1995, 56-7).

Internationally, based on the statistics provided by the *Science Citation Index* (SCI) of the Institute for Scientific Information, by university affiliation of authors, ninety-two scientific articles were published in internationally recognised scholarly journals in 1996, seventeen more than that in 1995 (a rate of increase of twenty-three percent), a feat which placed ZU the thirteenth among all Chinese universities. The number of articles that were both included and cited by SCI reached eighty-seven (the fourteenth in China), while the *Engineering Index* included sixty-three articles by ZU staff (the twenty-ninth 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 twenty-five were at national level), forty projects were granted by the then State Education Commission, and thirty-nine were at the provincial level, respectively 150, 143 and 156 percent 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 a context of globalisation, China's higher education is compelled to become increasingly responsive to economic needs, accountable for its financial resources, entrepreneurial and competitive (Min 1999, Postiglione and 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 recognised. 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-recognised 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 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, have 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 internationalisation 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 internationalisation, 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 seventy 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 decentralisation and marketisation, the Chinese government had initiated fundamental changes in the orientation, financing, curriculum, and management of higher education (Agelasto and 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 marginalised in the relentless pursuit of money."

The practise of ZU also echoes what is happening internationally (Clark 1998): a number of recent changes have affected the way universities work and the work that academics do (Slaughter and 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 globalising politicians and bureaucrats (Currie and Newson 1998). Within these processes, forces of internationalisation and globalisation 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, indeed, 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 and 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 internationalisation as attaining world-class academic strength, which, in reality, is again simplified as research, confined overwhelmingly to science and engineering, due to the 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 techno-science. 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, who traditionally show scant concern for the social sciences. Even within one institution, the internationalisation 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 internationalisation of higher education is indeed regional within universities, just as within the country overall.

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Notes:

¹ This refers to the Revolution of 1911, the Chinese bourgeois democratic revolution led by Dr. Sun Yat-sen which overthrew the *Qing* dynasty.

² China's higher education reorganisation in the 1950s aimed to gear universities to the needs of national construction (Ma 14 June 1950), and centred on the readjustment and/or establishment of institutions of engineering (*People's Daily* 16 April 1952, *Xinghua Monthly* May 1950, 158-9).

³ Post-doctoral centres began to emerge within Chinese campuses by discipline or research area in 1985 to make best use of talented Doctorate holders. Requirements for establishment of post-doctoral centres are accredited doctoral programs, with well-recognised nationally leading research level, plus even stronger research resources and personnel than that required for doctoral programs. For an account of the work of the post-doctoral centres, see also Hayhoe (1989, 55) and Gu (1991, 71-2). A post-doctoral centre is, therefore, eyed as a sign of the highest academic level in the concerned field in China, whose establishment needs to be approved by the Ministry of Education.

⁴ *Jiegui* was a catchword in the early 1990s when China finally decided to adopt a market economy. Its basic meaning is to link up China's practice with the mainstream of international trends. The central target of *Jiegui* is to regulate China's practice according to the criteria and mainstream of international practice.

⁵ After being closed to international intercourse for decades, China adopted its policy of opening to the outside world at the Third Plenary Session of the Eleventh Central Committee of the Communist Party of China held in December 1978.