



United Nations  
Educational, Scientific and  
Cultural Organization



International Institute  
for Educational Planning

# Case Study

## Enhancing Teaching and Learning through Internal Quality Assurance Xiamen University, China

Wu Daguang, Xie Zuoxu,  
Wu Fan, and Qi Yanjie

China



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# Contents

List of tables and figures	4
Acknowledgements	6
Abbreviations	7
Introduction	8
1. Higher education in China	10
1.1 Overview of the development of higher education in China	10
1.2 Growth of the higher education sector	10
1.3 Changes in the governance structure of higher education in China	12
1.4 External quality assurance in Chinese higher education and the ‘five-in-one’ evaluation system	13
2. Institutional environment of Xiamen University	16
2.1 History and main structural elements	16
2.2 University governance structure	19
2.3 The strategic profile of the university	21
3. The IQA system at Xiamen University	26
3.1 The conceptual framework for IQA	26
3.2 The IQA structure at Xiamen University	29
3.3 IQA instruments for teaching/learning, employability and management	30
4. Findings of the empirical study	34
4.1 Research methodology	34
4.2 Participation statistics: Online surveys	34
4.3 Participation statistics for interviews and focus group discussions	37
4.4 Awareness of and involvement in the quality assurance system	38
4.5 Effects on teaching and learning, employability, and management	42
4.6 Conditioning factors	48
5. Conclusions	57
5.1 Main innovations in the IQA system	57
5.2 Good principles for IQA and lessons learned	60
Bibliography	62

# List of figures, tables, and boxes

## Figures

Figure 1.1	Changes in the number of different types of institutions from 1999 to 2013	10
Figure 1.2	Gross higher education enrolment ratio	11
Figure 1.3	Changes in student numbers from 1999 to 2013	11
Figure 1.4	'Five-in-one' higher education evaluation system	14
Figure 2.1	Composition of academic staff	17
Figure 2.2	Composition of students	18
Figure 2.3	Revenue sources in 2014	18
Figure 2.4	Percentage of expenditure in different categories in 2014 (amounts in RMB millions)	19
Figure 2.5	Employment rates of graduates over the past three years	24
Figure 3.1	System of IQA for undergraduate education at XMU	26
Figure 3.2	IQA framework of XMU undergraduate teaching	27
Figure 3.3	Workflow of IQA activities at XMU	28
Figure 3.4	IQA Structure of XMU	29

## Tables

Table 4.1	Disciplines (academic staff)	35
Table 4.2	Academic positions (academic staff)	35
Table 4.3	Leadership positions (academic staff)	35
Table 4.4	Length of service (academic staff)	36
Table 4.5	Fields (administrative staff)	36
Table 4.6	Highest educational achievement (administrative staff)	37
Table 4.7	Leadership positions (administrative staff)	37
Table 4.8	Length of service (administrative staff)	37
Table 4.9	Interview and focus group discussion participants	38
Table 4.10	Awareness of quality policy	39
Table 4.11	Awareness of quality manual	39
Table 4.12	Academic staff involvement in IQA tools on T/L and employability	40
Table 4.13	Administrative staff involvement in IQA tools on management	41
Table 4.14	Effects of IQA tools on T/L (academic staff)	43
Table 4.15	Effects of IQA tools on employability (academic staff)	45
Table 4.16	Effects of IQA Tools on management (administrative staff)	47
Table 4.17	Survey questionnaire data (academic and administrative staff)	48
Table 4.18	Main paradigm of IQA instruments and processes	55

Table 4.19	Overall workload with IQA instruments and processes	55
Table 4.20	Overall benefits with IQA instruments and processes	55
Table 4.21	IQA for improved management decisions	55
Table 4.22	Contribution of IQA to overall improved effectiveness	56

## **Boxes**

Box 2.1	Main objectives of the quality policy at Xiamen University	22
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Wu Daguang, Xie Zuoxu, Wu Fan, and Qi Yanjie

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# Abbreviations

<b>AACSB</b>	Association to Advance Collegiate Schools of Business
<b>AMBA</b>	Association of MBAs
<b>CCP</b>	Chinese Communist Party
<b>DBA</b>	Doctor of Business Administration
<b>EMBA</b>	Executive Master of Business Administration
<b>EQA</b>	external quality assurance
<b>EQUIS</b>	European Quality Improvement System
<b>HEEC</b>	Higher Education Evaluation Centre
<b>HEI</b>	higher education institution
<b>IQA</b>	internal quality assurance
<b>MBM</b>	Master of Business Management
<b>MoE</b>	Ministry of Education
<b>MOOC</b>	massive open online courses
<b>PPT</b>	PowerPoint presentation
<b>PRC</b>	People's Republic of China
<b>QA</b>	quality assurance
<b>RMB</b>	Chinese yuan
<b>XMU</b>	Xiamen University



## Introduction

Internal quality assurance (IQA) in higher education can be understood as the planned and systematic review of a higher education institution (HEI) to determine whether or not acceptable standards of education, scholarship, and infrastructure are being met, maintained, and enhanced. It is a method designed to add value to higher education by encouraging the continuous improvement of educational and scholarly outcomes.

An IQA system integrates the quality assurance efforts of all HEI units and tries to control the factors that condition the quality of education, building on clearly defined tasks and responsibilities. Such a system usually covers the entire process of student education, from enrolment to graduation. IQA relates to essential components such as quality standards, human and financial resources, logistical support, effective assessment and monitoring, and effective improvement mechanisms.

Quality assurance has gained significant momentum in Chinese higher education. The Government's *National Programme for the Reform and Development of Education in the Medium and Long Terms (2010–2020)* envisages that, by 2020, China will be a leading power in terms of human resource development, and that higher education will have entered a phase of massification. With higher education in a critical period of transition, the government considers it imperative to intensify efforts to develop quality assurance and enhancement in the Chinese higher education sector.

Xiamen University (XMU), one of China's most prominent research universities, maintains a close integration of teaching, learning, and research and is committed to the development of students' overall competences. Over the past 20 years, an efficient and effective IQA system for teaching and learning has developed from a comprehensive set of rules and regulations centred on teaching and learning. The university introduced an undergraduate teaching supervision system in 1997, a student course evaluation system in 1999, a self-evaluation system in 2005, an undergraduate supervision system in 2006, a system of enrolment by broad category in 2013, and integrated master's and doctoral courses in 2014. This wide range of reform in the area of quality assurance and enhancement enabled the university to continuously improve the support that it provides to its academic programmes.

Internal quality assurance is aimed at strengthening graduate employability, as much as at facilitating the creation, dissemination, preservation, and application of knowledge and providing services to the university's stakeholders. The university has incorporated the promotion of graduate employability into its strategic plan and is committed to creating internship, employment, and entrepreneurship platforms for students, enhancing graduates' adaptability in society, and maximizing graduates' potential for career development.

This case study is part of a UNESCO International Institute for Educational Planning (IIEP) research project exploring 'innovative and effective methods of internal quality assurance in higher education', looking in particular at the effects on teaching and learning, employability, and management. It aims, first, to describe the IQA system at XMU and highlight its principles and innovative elements. Second, it describes the level of awareness of IQA among staff at the university, and the extent of their engagement in it, factors considered essential for an effective IQA system. Third, the study outlines the effects of IQA on teaching and learning, graduate employability, and management. Finally, it identifies stakeholder perceptions as to the internal and external factors that condition the effective functioning of the IQA system, as well as their overall perceptions of the effectiveness and benefits of IQA at XMU.

The research methodology used in the case study is based on a multi-stakeholder approach. The stakeholders include academic and administrative staff, students, and personnel in academic and administrative leadership positions. The views of academic and administrative staff were investigated using online surveys. The surveys were specifically adapted to those IQA instruments with which the university's academic and administrative staff are most typically involved. Semi-structured interviews were also conducted with senior and middle-level academic leaders, senior and middle-level administrative leaders, and students in order to capture, in greater depth, the viewpoints of different stakeholders at XMU. Official documents and literature on Chinese higher education and XMU were also studied in order to present the national and institutional contexts for the functioning of the IQA system at XMU.

IQA systems must, themselves, be reviewed and evaluated. The research provided a welcome opportunity to investigate crucial dimensions of the current IQA system at XMU, with a view to identifying both strengths and weaknesses. The results generated by the research will serve as a basis for the future development of IQA at XMU and help to further align it with the strategic direction of the university.

# 1. Higher education in China

This chapter describes the development of higher education in China and provides an overview on the ongoing process of massification. It includes analysis of external quality assurance in China, and the current ‘five-in-one’ system, which provided the foundation for the development of the internal quality assurance (IQA) system at Xiamen University.

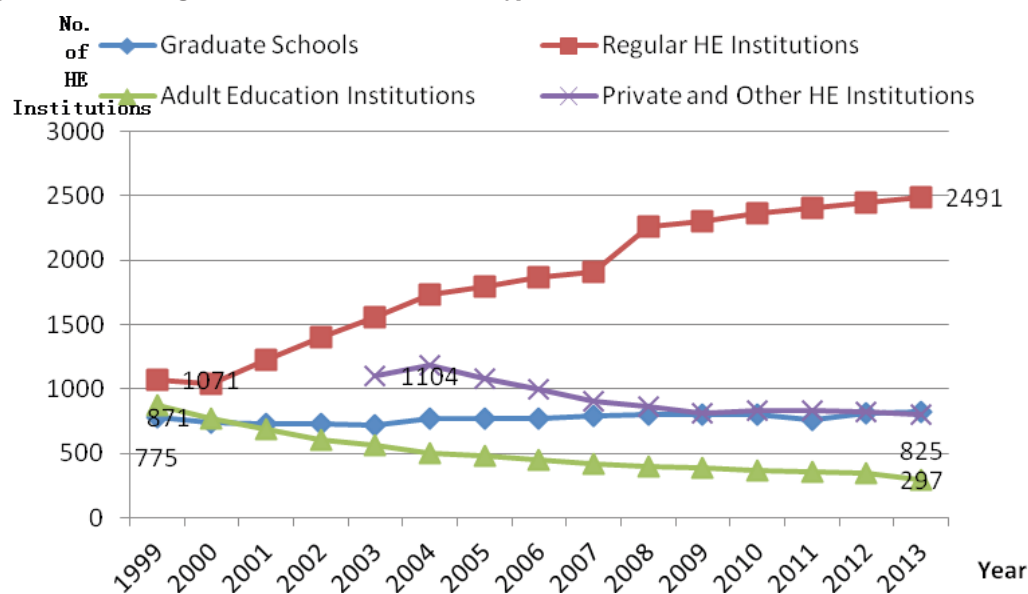
## 1.1 Overview of the development of higher education in China

The development of higher education is crucial to economic growth and the enhancement of social development in all countries. Since 1999, higher education in China has grown in leaps and bounds, in parallel with the nation’s economic growth. In achieving a gross enrolment ratio of 34.5 per cent, as of 2013, China’s higher education system has undergone substantial reform, including the establishment of a major system of quality assurance at national level. It is considered to have now entered an era of ‘massified’ student numbers.

## 1.2 Growth of the higher education sector

In China, the number of higher education institutions (HEIs) has grown rapidly since 2000 (see Figure 1.1). It more than doubled between 1999 and 2013 from 1,071 to 2,491. However, the number of institutions for adult education fell sharply over the same period from 871 to 348, while the number of private and other institutions also declined from 1,104 in 2003 to 802 in 2013. With the upsurge in the overall number of HEIs, the sector’s composition has become more diverse, leading to the coexistence of central government-affiliated institutions, regional government-affiliated institutions, and private institutions.

**Figure 1.1** Changes in the number of different types of institutions from 1999 to 2013

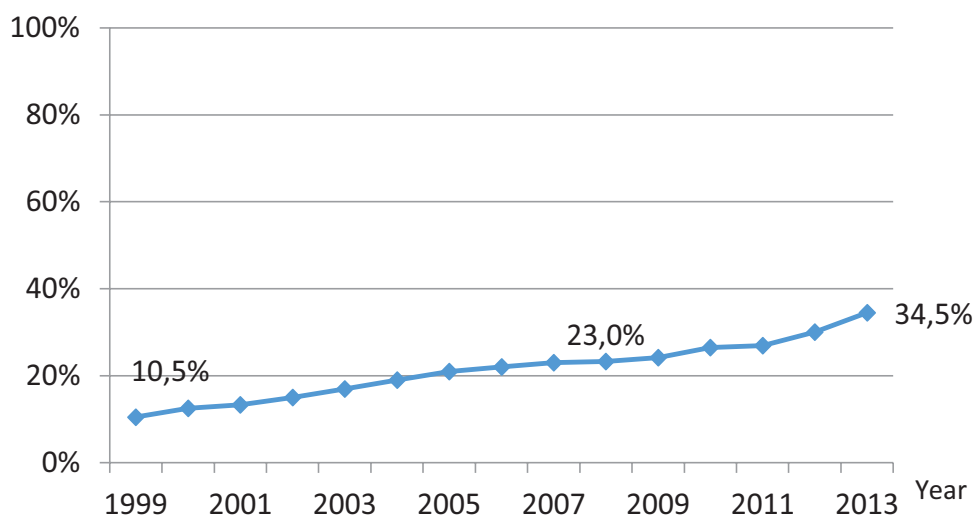


Source: Educational Statistics of China (MoE website).

The rapid rise in the number of HEIs was accompanied by a corresponding increase in the number of students enrolled in higher education. In 1999, the former National Planning and Development Commission and the Ministry of Education jointly announced plans to increase higher education enrolment. By 2002, the gross enrolment rate had risen to 15 per cent from 10.5 per cent in 1999 (see Figure 1.2), marking the transformation of China’s higher education system from one offering ‘elite education’ to one offering ‘mass

education', according to Martin Trow's categorization of university systems (Trow, 1973). In 2013, the enrolment rate reached 34.5 per cent, an increase of 19.5 percentage points over an 11-year period. In its *Programme for the Reform and Development of Education in the Medium and Long Terms (2010–2020)*, the Chinese Government envisaged that by 2020 the nation's education system would be largely modernized, and that a learning society would take shape, leading to the further massification of higher education, with the enrolment rate reaching a target of 40 per cent.

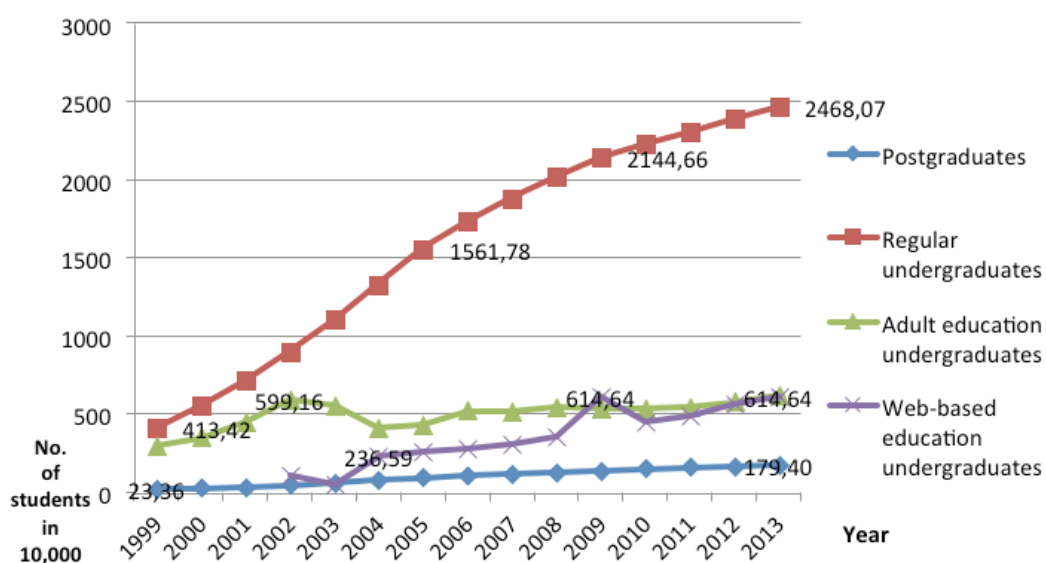
**Figure 1.2 Gross higher education enrolment ratio**



Source: MoE, 2011.

Between 1999 and 2013, the number of postgraduate students surged from 233,600 to 1,794,000, while the number of undergraduate students in regular higher education rose from 4,134,200 to 24,680,700. Over the same period, the number of undergraduates in adult education increased equally impressively, from 3,054,900 to 6,264,100. By 2013, China had the largest higher education system in the world, in terms of student numbers.

**Figure 1.3 Changes in student numbers from 1999 to 2013**



Source: MoE, 2011.

### 1.3 Changes in the governance structure of higher education in China

The growth in Chinese higher education has led to changes in the governance structure of HEIs in China. Prior to the 1980s, HEIs across the country were vertically managed by sectoral ministries and commissions answerable to central government. In the ensuing decades, as the nation's economic system was reformed, most higher education institutions were placed under the management of regional government, eventually leading to the formation of a hierarchical management system involving both central and regional government.

While the management affiliation of higher education was changing, the operational autonomy of institutions was expanding. The *Programme for the Reform and Development of Education in the Medium and Long Terms*, unveiled by the Chinese Government in 2010, defined the scope of the respective powers of central government, regional government, and higher education institutions (MoE, 2010). Central government became responsible for managing the nation's education system, elaborating development plans, guidelines, policies, and basic standards, optimizing the structure, composition, and physical distribution of academic programmes, making overall arrangements for piloting education reforms, and ensuring coordinated regional development.

Provincial governments took charge of implementing the state's guidelines and policies, piloting education reforms, reforming and developing education in their respective regions, approving the establishment of higher education institutions offering associate degrees, reviewing provincial government-affiliated institutions offering bachelor's and master's degrees, and establishing facility and staffing requirements for all institutions on the basis of the relevant national standards.

HEIs were given full responsibility for carrying out teaching activities, scientific research and technological development, providing social services, developing and implementing institutional plans, creating and maintaining teaching, research, and administration units, determining internal income distribution, and managing their own human, financial, and material resources. This division of responsibility has significantly expanded the operational autonomy of HEIs and has allowed them to take greater initiative in organizing their internal affairs.

Reduced public funding and increased marketization led to the introduction of tuition fees in Chinese higher education in the early 2000s, further accelerating growth in the operational autonomy of HEIs (Li and Yang, 2014). The proportion of higher education funding provided by central government steadily decreased, dropping below 53 per cent in 2001. Reduced government funding encouraged Chinese HEIs to shift the burden of tuition costs to students. In response, the Ministry of Education, in 2002, capped tuition fees at different levels for different majors and types of institution. Despite these regulations, the distribution of roles and the market mechanism nonetheless boosted the development of institutional autonomy in Chinese HEIs.

With the reform of higher education management, ultimate responsibility for assuring the quality of higher education shifted from central to regional government and then to institutions. In the era of the planned economy, the government was 'omnipotent' and 'took care of everything' relating to education. The ongoing reform of the nation's political system has seen a transformation in the government's role, from one with unlimited responsibility to one with limited responsibility and a service orientation. This new role has necessitated the restructuring of higher education management and the reform of government functions in the education sector. The management of higher education institutions at government level is being phased out and greater operational autonomy is being granted to institutions. Increasingly, central government's role is confined to macro-management, while institutions operate independently with a market orientation.

## 1.4 External quality assurance in Chinese higher education and the ‘five-in-one’ evaluation system

### ***External quality assurance systems in Chinese HEIs***

During the governance reform process, external quality assurance (EQA) in Chinese higher education revolved around efforts to expand the autonomy and accountability of institutions. In the wake of the *National Programme for the Reform and Development of Education in the Medium and Long Terms*, the government set out to build a modern system around a new relationship between the institutions and society. As a result, institutional autonomy has further increased, with ultimate responsibility for quality assurance (QA) shifting from the government to institutions.

As reforms to the governance of Chinese higher education have developed, new mechanisms of accountability have emerged in the nation’s higher education EQA system, grounded in the reality of life in China.

### ***Evaluation-centred EQA***

As higher education in China has expanded, a number of problems have surfaced, such as poor awareness of quality, inadequate commitment to teaching, weak teaching management, and insufficient teaching reform. To address these problems, the Ministry of Education (MoE) has begun to develop a quality assurance system centred on the evaluation of teaching quality. In 2012, the MoE made it a requirement for HEIs to submit annual reports on the quality of undergraduate teaching, and announced that such reports would become a central element in the evaluation of undergraduate teaching, thereby establishing the primary role of institutions in the assurance of higher education quality.

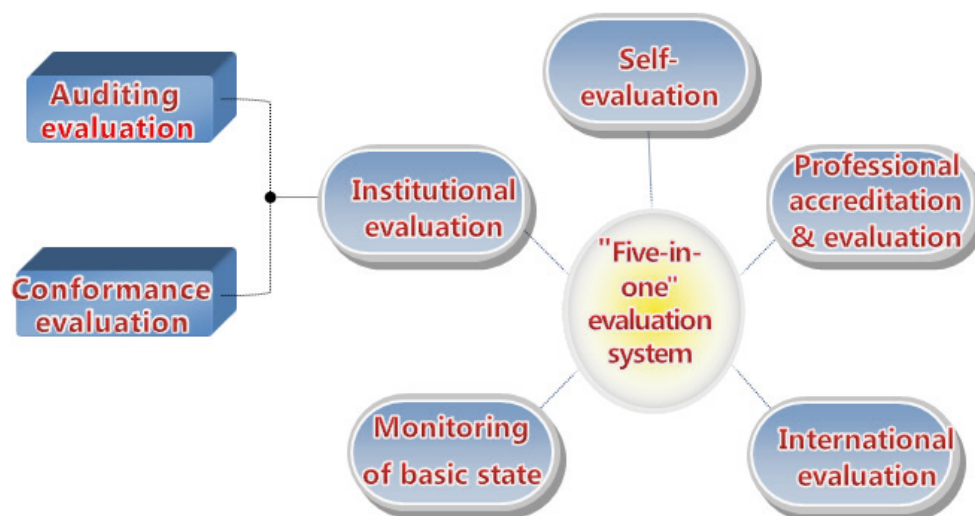
It was considered equally important that institutions make greater efforts to collect information regarding the demand for graduates in the economy, to track graduates in the labour market, and to build necessary internal evaluation for this purpose. Institutions began to develop their quality awareness through evaluation and to better recognize the direct relationship between educational quality and the economic and social development of the country.

### ***‘Five-in-one’ evaluation system***

Governance reform led, in 2009, to the introduction of the ‘five-in-one’ evaluation system, which aims to expand the operational autonomy of institutions and to shift ultimate responsibility for QA to them. It represents a new, integrated quality assurance system, emerging from the reform and development of China’s higher education system. Based on internal self-evaluation, the ‘five-in-one’ system comprises institutional external evaluation (including conformance evaluation and auditing evaluation), professional accreditation and evaluation, and international evaluation, as well as the monitoring of teaching quality within institutions. It is a comprehensive quality evaluation system which involves all stakeholders, including government, institutions, employers, parents, and students. The system reflects China’s commitment to the scientific, systematic, and standardized development of higher education quality assurance.

The ‘five-in-one’ evaluation is not a one-off evaluation targeting a single area. Rather, it is an integrated system comprising evaluation by government, institutions, specialized agencies, and society. Its main components are as follows:

**Figure 1.4 'Five-in-one' higher education evaluation system**



Source: Educational Science Publishing House, 2016.

**Self-evaluation by HEIs:** Self-evaluation refers to institutions' own evaluation of their teaching conditions, processes, and outcomes on the basis of their educational objectives. It is a way of ensuring the effectiveness of institutions' quality assurance of teaching, and comprises the evaluation of departments, academic programmes, and courses. During self-evaluation, emphasis is placed on teachers' and students' assessment of teaching, students' learning outcomes, efficiency in the use of teaching resources, and employers' assessment of the quality of graduates. Self-evaluation forms the basis for each institution's annual quality report and is a primary reference point for institutional evaluation and academic programme evaluation. Self-evaluation by HEIs in China forms the backbone for the development of internal quality assurance at institutional level.

**Institutional external evaluation:** Institutional external evaluation includes conformance evaluation and auditing evaluation. Conformance evaluation is focused on each institution's operating conditions, teacher management, and teaching quality, as well as their capacity to support regional socio-economic development and produce graduates with socially and economically useful skills. This form of evaluation targets institutions offering bachelor's degrees which have not been subject to institutional evaluation since 2000. Institutions are graded as having 'passed', 'passed with deferment', or 'failed'. Auditing evaluation targets institutions which have passed their institutional evaluation. It takes place every five years, and focuses on their operating conditions, undergraduate teaching quality, operational positioning, attainment of student education objectives, IQA system development and operations, reform measures initiated for undergraduate teaching, and their results. At the end of an auditing evaluation, a descriptive report is issued, though no grading is given to the institution.

**Professional accreditation and evaluation:** Professional accreditation is applied to certain disciplines, such as engineering and medicine, in accordance with international standards. Industry is involved in developing accreditation standards and in performing accreditation to ensure better alignment of disciplines with industry requirements. Specialized agencies and intermediary agencies are typically engaged to carry out the professional accreditation of higher education institutions.

**International peer evaluation:** Resource-rich higher education institutions are encouraged to engage high-level international experts and scholars to evaluate their academic programmes. They are also encouraged to explore the possibility of developing

partnerships with recognized international education evaluation agencies and to engage in international exchanges to enhance their evaluation standards.

**Monitoring of data on basic state of teaching:** HEIs are encouraged to collect information and build databases on the quality of undergraduate teaching. They are required to use the data they collect to establish mechanisms for monitoring undergraduate teaching, and to make available key data on teaching to the public. Each institutional database is incorporated into a national database which plays a crucial role in government and public monitoring of higher education quality in relation to undergraduate teaching evaluations.

In summary, diversity is a key feature of the ‘five-in-one’ evaluation system. This can be seen in: (1) the diversity of evaluation standards, with different metrics for conformance and auditing evaluation; (2) the diversity of forms of evaluation, including institutions’ self-evaluation, professional accreditation, and international evaluation; (3) the diversity of evaluators, which includes the government, institutions, specialized agencies, and other stakeholders; (4) the diversity of evaluation findings released, including findings of institutional evaluation, findings of professional accreditation, data on teaching quality, and annual quality reports; and (5) the diversity of evaluation methods, including cyclical institutional evaluation, professional accreditation, and monitoring of teaching quality on the basis of databases and annual quality reports.

National requirements for evaluation and quality assurance have had a major impact on the way Chinese higher education institutions are currently managing the quality of their educational offer. The link between external quality assurance and internal quality assurance at Xiamen University will be examined in *Chapter 4*.



## 2. Institutional environment of Xiamen University

This chapter considers the institutional environment of Xiamen University, its evolution, current structure, academic programmes, and strategic profile. It provides the background for the subsequent analysis of Xiamen University's IQA system, in order to better understand the context and the conditions under which it operates.

### 2.1 History and main structural elements

Xiamen University was founded in 1921 by Tan Kah Kee, the leader of the overseas Chinese community. It was the first Chinese-established overseas higher-learning institution in the nation's modern education history. Following the foundation of the People's Republic of China in 1949, the university underwent a rapid evolution. In 1952, the university was officially recognized as one of 14 comprehensive universities in China. In September 1963, it was put under the direct administration of the Ministry of Education (MoE). As the only leading comprehensive university in a special economic zone, in 1978 the university received selective funding provided to research-intensive universities on a competitive basis, as part of China's move towards greater openness. It became a centre of scholarship on the nation's south-eastern coast, noted for its excellent research and teaching, gaining a prestigious reputation in the process. In July 2004, Xiamen University (XMU), along with 30 other institutions, was included in the first group of higher education institutions put under the administration of the Central Committee's Organization Department.

#### ***Campuses, colleges, and programmes***

The university is based across several locations, including: (1) Siming district, where the Faculty of Fine Arts and Humanities, the Faculty of Social Sciences, the Faculty of Natural Sciences, and the Faculty of Engineering Technology are located; (2) Zhangzhou city, Fujian, which is home to Tan Kah Kee College; and (3) Xiang'an district, where the Faculty of Medicine and Life Sciences, the Faculty of Earth Science and Engineering, the South Promotion Centre for Chinese Language, and the Directors' Academy of Confucius Institutes are based. XMU is also currently in the process of building a campus in Malaysia.

As well as a graduate school, there are six faculties, 27 colleges or schools (consisting of 76 departments), and 14 research institutes at XMU. The university offers a comprehensive choice of disciplines, including arts, humanities, social sciences, natural sciences, engineering and technology, management sciences, and medicine.

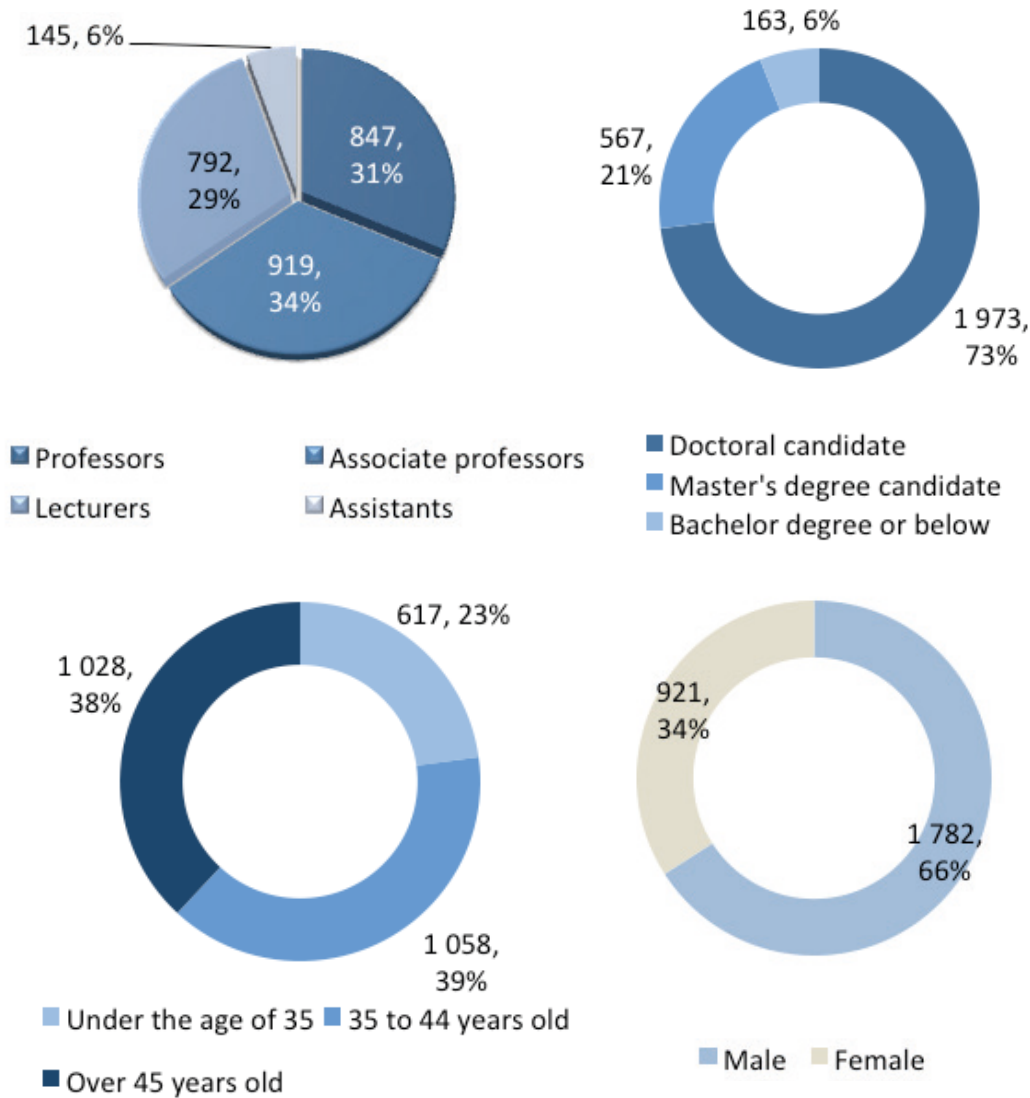
The university offers 92 programmes for undergraduates in the following 11 broad disciplines: philosophy, history, economics, law, education, literature, natural sciences, engineering, medicine, management, and arts. The university is authorized by the Ministry of Education to award master's and doctoral degrees in all 11 of its disciplines. It offers 276 graduate programmes and 187 PhD programmes, a broad range of provision which augments its research capacity and performance.

#### ***Academic and administrative staff***

As Figure 3.1 shows, the university has 2,703 academic members of staff, including 1,766 full professors and associate professors, making up 65.3 per cent of the total academic staff. Of these professors, 1,973 (73 per cent) hold a PhD. Around two-thirds of academic

staff were male (66 per cent) with women accounting for 34 per cent. The majority of academic staff are either aged between 35 and 44 years (39 per cent) or are over 45 years old (38 per cent).

**Figure 2.1 Composition of academic staff**



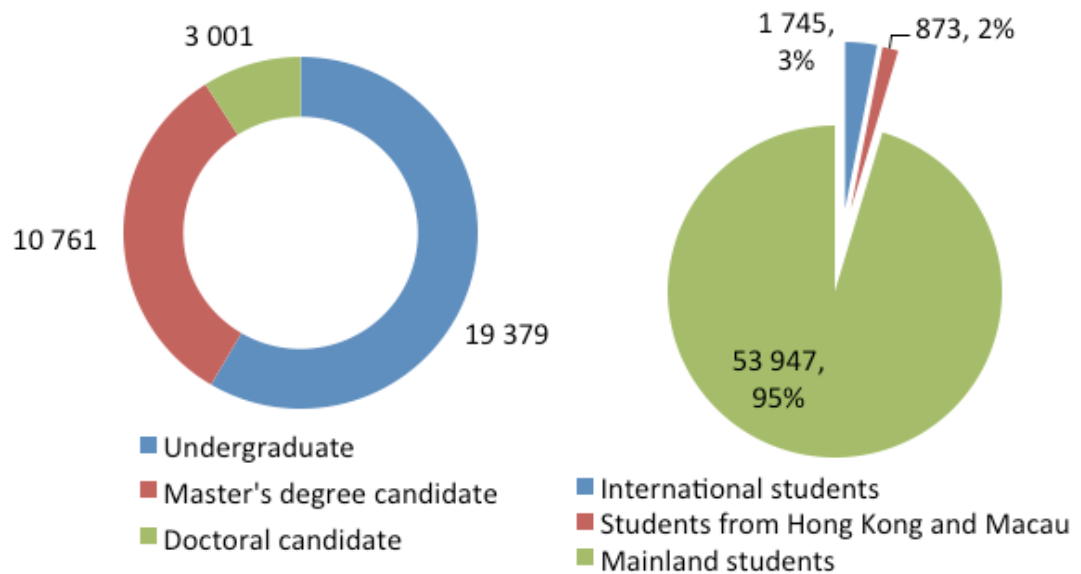
Source: Xiamen University, 2014a.

The university has 1,822 administrative staff, including 780 administrators, 1,002 support personnel, and 40 logistics workers.

**Students (undergraduates and postgraduates)**

In 2014, 35,759 students were enrolled at the university, including 19,379 undergraduates, 10,761 master’s students, and 3,001 doctoral students. Of these students, 2,353 are members of ethnic minorities in China and 2,618 are from outside of mainland China.

**Figure 2.2 Composition of students**

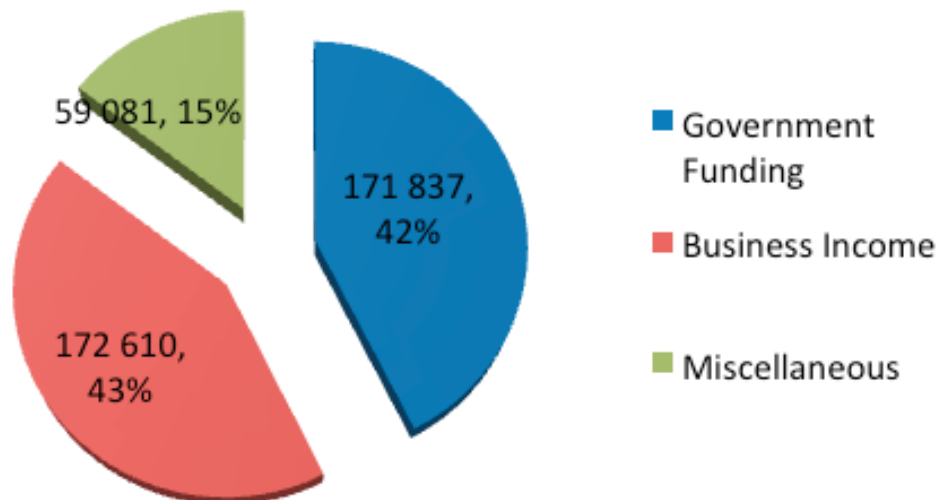


Source: Xiamen University, 2014a.

**Revenue and expenditure (allocation of funding per student)**

The university received total revenue of RMB (Chinese yuan) 4.04 billion in 2014, from three sources: government funding (RMB 1.72 billion, representing 43 per cent); business income (RMB 1.73 billion or 43 per cent); and miscellaneous incomes (RMB 590.81 million or 15 per cent), as shown in Figure 2.3:

**Figure 2.3 Revenue sources in 2014**



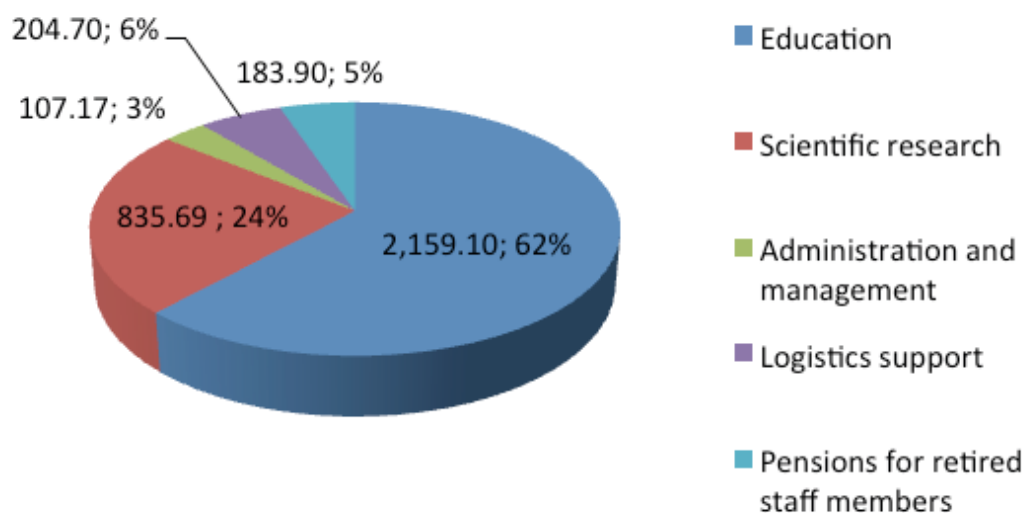
Source: Xiamen University, 2014a.

Government funding for each undergraduate student in 2014 ranged from RMB 12,000 to RMB 30,000 per year, depending on their chosen programme, with an average of RMB 17,362. For each master's and doctoral student, RMB 22,000 and RMB 28,000 was allocated per year, respectively.

The university's total expenditure in 2014 was RMB 3.49 billion. This breaks down as follows: (1) education (RMB 2.16 billion, representing 62 per cent); (2) scientific research

(RMB 835.69 million or 24 per cent); (3) university administration (RMB 107.17 million or 3 per cent); (4) logistics (RMB 204.70 million or 6 per cent); and (5) pensions (RMB 183.90 million or 5 per cent). The breakdown of expenditure is illustrated in Figure 2.4.

**Figure 2.4 Percentage of expenditure in different categories in 2014 (amounts in RMB millions)**



Source: Xiamen University, 2014b.

The combined expenditure for education and scientific research amounts to about RMB 3 billion, making up 86 per cent of the total. This reflects XMU's strategic priorities and its commitment to excellence in education and scholarship.

## 2.2 University governance structure

### ***Duality of academic and party leadership***

The governance structure in all Chinese universities is characterized by a duality of academic and party leadership. As required by the *Higher Education Law* and the *Charter of Xiamen University*, the president is responsible for the administration of the university under the leadership of the university's Chinese Communist Party (CCP) committee. The CCP committee exercises supreme authority over the university and is the core of university leadership. The president is the legal representative and administrative head and takes full responsibility for teaching, scientific research, and other administrative work, under the leadership of the CCP committee. The president's office meets once a week to discuss and resolve major issues of university administration. The university has six vice-presidents to assist the president in his/her work.

A branch CCP committee operates at faculty level, under the leadership of the CCP committee. It is responsible for CCP affairs and the ideological and political work of the faculty, ensuring the implementation of CCP education policies, national education policies, and the university's decisions, and supporting the faculty's executive team and chief executive in the performance of their duties.

The faculty dean is the chief executive of the faculty and takes full responsibility for the development of specialisms, teaching work, scientific research, social services, and other administrative work of the faculty. The dean reports regularly on his/her work during faculty and staff meetings, or at the faculty and staff congress. Each faculty has between one and three vice-deans who provide administrative support to the dean, according to their needs.

Each faculty has an academic council, a faculty committee, a degree committee, a university affairs committee, and a graduate teaching work committee. Various committees perform functions relating to the faculty's academic affairs, including decision-making, review, assessment, and counselling, according to their respective articles of association and rules of procedure. Each faculty also has a faculty and staff congress and a labour union, safeguarding the rights of faculty and staff to participate in the democratic administration and supervision of the faculty.

### ***Academic decision-making organs***

In addition to the dual leadership described above, a number of other organs share responsibility for decision-making within Chinese universities.

**Academic council:** The academic council is the supreme academic organ of the university and collectively performs the functions of decision-making, review, assessment, and counselling regarding academic affairs. The council is headed by leaders of faculty committees on a rotation basis.

**Faculty committee:** The university has various faculty committees, which provide advice on the academic affairs of each faculty. Their work is managed by the head of the faculty committee, who is normally a senior professor who does not hold an administrative position. A faculty committee mainly fulfils the following duties: review of the disciplinary plan of the faculty; review of the faculty's plan for the allocation of key resources; review of the faculty's detailed rules for employment of technical professionals; review and recommendation of candidates for professional technical positions of the faculty; review of other major issues, as required.

**Degree committee:** The degree evaluation committee is the decision-making body for affairs relating to university degrees. Its chair, usually the university president, presides over its work.

**University affairs committee:** The university affairs committee provides advice, opinions, and proposals on university work, including human resource development, scientific research, social services, innovation, and the pursuit of university values. The committee is headed by the secretary of the university's CCP committee.

**Graduate teaching work committee:** Members of the graduate teaching work committee must be experts in the graduate teaching work of the university. They are responsible for research, counselling, guidance, and assessment, as well as services relating to the university's teaching work. The committee carries out theoretical and practical research in the field of teaching and contributes opinions and proposals on improving teaching quality.

### ***Consultative bodies***

Consultative bodies form part of the governance structure of Chinese universities. Their role is to ensure the participation and involvement of staff and students.

**Faculty and staff congress:** The university has a consultative faculty and staff congress the principal role of which is to provide opinions and proposals on the university's work. This is achieved by diverse means, but mainly by commenting on periodic reports, supervising the implementation of the university's legal texts and policies, and providing opinions and proposals for necessary improvement actions.

**Student congress:** The university's student congress gives students an opportunity to participate in the democratic administration and supervision of XMU and to safeguard the legal rights and interests of students. The student congress operates according to its articles of association, under the leadership of the university's CCP committee. The

student union and the postgraduate student union perform the congress's functions when it is adjourned.

**Labour union and other public bodies:** The university has a trade union, the Youth League, a women's committee, a student union, a postgraduate student union, and a number of other organizations which receive support from the university in performing their respective duties, under the leadership of the university's CCP committee. Whether they belong to democratic parties or not, members of these organizations can carry out necessary activities and engage with the democratic administration and supervision of the university, according to relevant articles of association.

In addition, the university has various teaching and scientific research units, including various schools, departments, laboratories, and research institutes (offices, centres, and bases). They are given the corresponding administrative powers and responsibilities in terms of human, financial, and material resources, and their independent operations are guided and supervised accordingly.

## 2.3 The strategic profile of the university

This section reviews the strategic profile of Xiamen University, in terms of the main goals of its development plan, and considers its strategic orientation in respect of enhancing the quality of the university's education offer and its relevance to the jobs market.

### ***Development plan***

Pursuant to the decision of the CCP central committee and the report issued during the 10th congress of the CCP Xiamen University Committee, the development goals of Xiamen University comprise a long-term development plan, a medium-term development plan, and a short-term development plan.

The general strategic development goal of the university is to become a globally recognized elite research university by 2021, the centennial of the university, and to become a world-class institution by 2050, the centennial of the People's Republic of China (PRC). The university plans to achieve these goals through three phases of development.

In the first phase, leading up to 2021, efforts will be made to: (1) elevate the general standard of the university in terms of teaching, scientific research, social services, and cultural promotion and innovation; (2) establish excellence in a number of academic disciplines, securing competitive advantage; (3) achieve a series of world-class, ground-breaking research results; and (4) train a number of experts and scholars with the capacity for global competition and cooperation, in all disciplines and fields.

In the second phase, the 15 years from 2021 to 2035, further efforts will be made to enable the university to: (1) contribute to national development; (2) significantly elevate its international academic standing; (3) bring more of its leading disciplines in line with world's highest standards of scholarship; and (4) train a number of world-class experts and scholars in all disciplines and fields.

In the third phase, the 15 years leading up to the centennial of the PRC in 2049, the university will consolidate its efforts to gain international recognition, turning the university into a world-class institution recognized globally for the high quality of its research by 2050.

On the basis of its medium- and long-term development plans, the university formulated a 'master plan' for reform in 2014, with the following lines of action:

- Deepen personnel system reform, to enhance working conditions for academic staff and attract outstanding talent.
- Deepen reforms to the postgraduate development system, to improve the selection of postgraduate students, their development, and supervision.

- Deepen reform to the discipline and scientific research management system.
- Deepen financial and asset management system reform.
- Improve the university's internal governance structure.

The master plan emphasizes enhancing the quality of teaching. The following main lines of action effectively constitute the current quality policy of the university.

### **Box 2.1 Main objectives of the quality policy at Xiamen University**

- Strengthen the overall quality of students, promote their general knowledge and competencies, and give students greater freedom in their studies so as to stimulate their learning interests and potential.
- Implement a pilot programme for the fostering of outstanding students in basic disciplines to facilitate the development of outstanding creative talents.
- Utilize modern technologies to establish a teaching resource centre and proactively advance the development of MOOCs (massive open online courses).
- Promote new pedagogic modalities, such as 'reverse classroom' and 'composite teaching', and facilitate the reform of teaching methods in general.
- Promote small-class teaching with a view to having fewer than 30 students in up to 70 per cent of graduate classes by 2021.
- Promote sharing of resources, including course, practice, and experimental resources, among graduate and postgraduate students.
- Strengthen students' practical abilities and creativity, promote deeper cooperation between the university and enterprises, and establish a small number of interdisciplinary innovation clubs,
- Promote the nurturing of internationalized talent, with a view to more than 50 per cent of students having overseas learning experience by 2021.
- Improve the system of annual inspection for graduate teaching assessment and sample inspection for discipline eligibility assessment. Promote the international certification of disciplines and establish teaching quality standards equivalent to international ones.

### ***Enhancing teaching and learning at XMU***

Since the mid-1990s, the university has launched a series of reforms to deliver better teaching for improved educational outcomes. These reforms include specific measures mainly involving the support of academic staff to improve their capabilities in the teaching area, reform of the administrative structures for teaching, and the creation of a specialized support structure for internal quality assurance, the Centre for the Development of Teaching and Learning (see *Chapter 4*).

#### *Developing measures for enhancing teaching and learning*

XMU has introduced a number of instruments to improve teaching and learning practice. First, it refined measures for the promotion of teachers. Whether their focus is on teaching or research, top-performing teachers are now promoted to professorship in an effort to encourage the best teachers to teach undergraduate courses. Second, the university changed its system for teaching workload evaluation in 2004. Under the new system, the university assesses teacher workload by calculating the number of courses or credits they teach rather than the number of teaching hours. Third, the university has increased the efficiency of undergraduate course evaluation through an online survey. Methods of evaluation by colleagues and faculty leaders have also been introduced. Feedback from the online survey is not only an important source of reference, but also directly informs the appointment or promotion of teachers. Lastly, the staff management system has been modified to harmonize the management of teachers in line with unified standards.

The university reassigns teachers to cross the boundaries between major and non-major classes to assure the quality of various courses and resources.

#### *Improving two-level teaching management*

In early 1998, guided by the principles of ‘simplicity, unity, and efficiency’, the university made renewed efforts to restructure the two-level relationship between the university and its colleges, as well as between administrative and academic bodies.

The university replaced the two-level teaching management system with a two-tier administration model which granted full operational autonomy to schools and departments. Schools and departments can now adjust their academic programmes and deploy academic resources as they see fit. For example, to enhance teaching performance, the School of Management has linked remuneration for course teaching to the results of student evaluation. Higher-rated teachers are paid more and the teacher voted the most popular receives a bonus. The approach gives schools and departments greater flexibility and autonomy in terms of teaching management.

The relationship between administrative and academic bodies was improved through the development of a teaching affairs committee and centres for laboratory teaching, as part of an effort to integrate these functions. The teaching affairs committee was set up in 2001 and is responsible for reviewing programme proposals, reform measures, and management systems pertaining to teaching affairs and the provision of guidance. The committee is also authorized to review matters concerning how to set up senior professional titles, evaluate and engage the teachers, and judge and award prizes for achievement in teaching. The larger-scale, more centralized laboratory teaching centres are based in different colleges and aim to enhance laboratory teaching quality and maximize teaching resources, especially laboratory resources. These new centres are responsible for the central allocation of instruments, funding, personnel placement, and control of the quality of laboratory teaching, formerly managed by smaller, individual labs. Newly drafted operating schemes support teaching quality by making targets and missions clearer, defining rights and responsibilities, and ensuring coordination.

#### *Creating the Centre for the Development of Teaching and Learning*

In 2012, Xiamen University established the Centre for the Development of Teaching and Learning, which is charged with enhancing teaching skills. The centre is a platform for teaching competitions, coaching services, and sharing teaching resources, all of which have elevated overall teaching quality to a new level. The centre hosts teaching skills competitions for young teachers, encouraging talented university teachers under 35 to compete, with a view to honing their skills and sharing their experience.

It also strives to improve the system through which newly recruited teachers, technicians, administrators, and student counsellors are trained. Over the last two years, all 680 new recruits have received training, and more than 90 per cent of trainees have passed examinations to obtain a teaching certification. Selected teachers also get a chance to attend teaching and research summer camps for young talented teachers where they can meet and exchange ideas with established teachers and researchers. Over the last two years, more than 120 teachers have attended the summer camp. The centre also hosts academic activities such as a teachers’ salon at which education experts discuss teacher development with young educators.

The centre also aims to support teacher development through the creation of archives of video lectures and online teaching resources readily accessible to teachers, including ‘Quality Courses’, ‘Excellent Network Teaching Materials’, ‘Online Video Courses’, ‘An Amazing Lecture’, and ‘Micro Class’. The university expects to establish a central platform for teaching resources, develop the College Teacher Development Research Database,



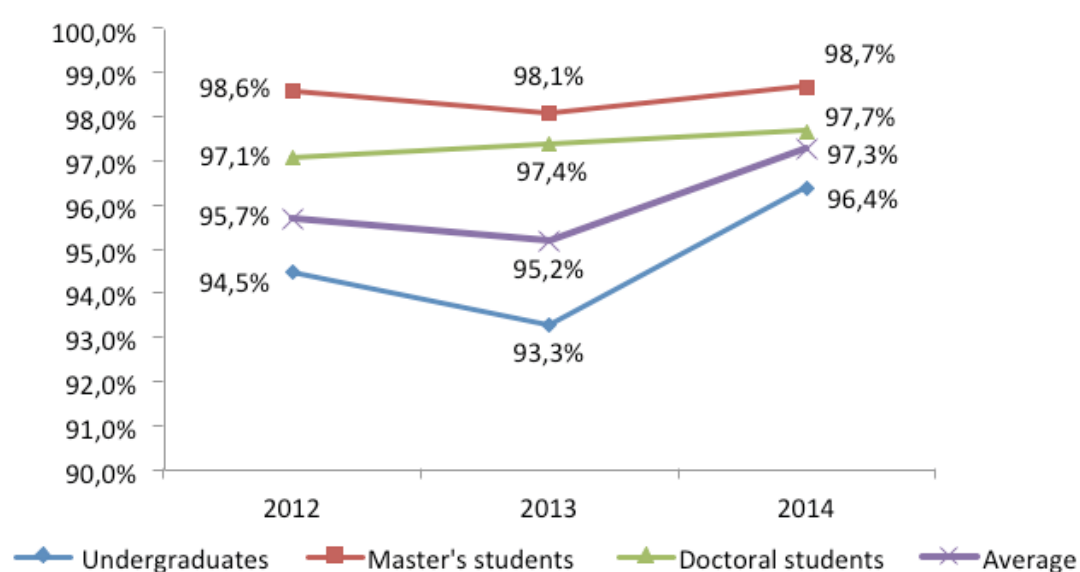
and, in partnership with the Ministry of Education's Higher Education Evaluation Centre (HEEC), to develop its Undergraduate Education Operational Database.

### **Enhancing graduate employability at XMU**

In China, university graduates are facing an increasingly competitive jobs market. The employment of university graduates has become a major concern of government. Universities now spare no effort in helping their graduates find jobs.

Xiamen University has an enviable record in terms of graduate employment. In 2014, the employment rate – the percentage of graduates in employment or pursuing further study –reached a peak of 97.3 per cent, up 2.1 per cent on the previous year. The figure includes 96.4 per cent of graduates of bachelor's programmes, 98.7 per cent of graduates of master's programmes, and 97.7 per cent of graduates of doctoral programmes.

**Figure 2.5 Employment rates of graduates 2012-2014**



Source: Xiamen University, 2015a.

To maintain this trend into the future, the university has adopted a number of approaches through which it aims to ensure graduate employability, including providing employment guidance at both university and department level.

#### *Providing employment guidance at university level*

XMU provides the following university-level guidance on graduate employment. The university makes use of a range of online and offline resources for employment guidance. It provides students with an employment manual, a career planning bookmark, an employment guide DVD, books, and other learning materials to students. It also compiles guidance materials across more than 70 specialisms, according to their capacity to improve the students' self-learning and self-management capabilities. New media such as WeChat, QQ Group, and yiban.com are used by the university to promote job opportunities to students. More than 75 per cent of graduates find employment through information provided by the university.

The university runs career development and employment guide courses with a focus on venture education. It encourages students to set up venture businesses during their university careers and has made venture education a major part of the its student development plan. The university also offers graduate training programmes on innovation and business start-up each year.

Counselling services are offered by the university, with an employment guidance team on hand to help students address their career development problems and improve their competitiveness in the job market. In terms of employment guidance, special attention is paid to supporting the employment of particular groups, such as students from economically disadvantaged backgrounds or graduates with disabilities, through conceptual guidance, vacancy recommendation, skills teaching, and financial support with, for example, travel expenses, or résumé printing. The university also encourages graduates to contribute to national development and revival by employing their talents in the western part of China, including in Guangxi, Sichuan, Hebei, Tibet, and Xinjiang, at grassroots level and with key national enterprises.

The university has formed partnerships with government agencies, major public and private organizations, and research institutes to build internship platforms for students. XMU often invites employers on to campus to take part in promotional meetings, and job and internship fairs. To date, the university has created three national-level and nine provincial-level internship bases for its students. XMU also makes full use of alumni resources in course teaching.

The university actively captures information about jobs market demands and vacancies through research, and publicizes nearly 80,000 job vacancies via the employment information website every year. It surveys more than 200 employers to better understand their approaches to recruitment, their satisfaction with graduates, and their skills requirements. The university files reports (for example, on student career development) with the education authority and various schools and faculties. XMU also investigates the employment conditions of graduates and their employers through research. Its aim is to capture the opinions of graduates and employers in order to strengthen the relationship between university and employers and improve the quality of education overall.

#### *Providing employment guidance at department level*

Employment guidance is also provided at department level. The Department of Business Administration, for instance, has launched a programme to provide each junior student with two supervisors (one a successful alumnus and the other a full-time faculty member) who offer academic and career counselling to enhance their employability.

The School of Information Science and Engineering has launched a programme through which graduate students provide academic tutoring for undergraduates. This programme allows graduate and undergraduate students to interact and communicate with each other. It not only provides teaching practice opportunities for graduate students, but also enables undergraduates to gain a deeper understanding of research. This enables them to make an informed choice between taking up employment and pursuing graduate study on completion of their bachelor's programmes.

### 3. The IQA system at Xiamen University

This chapter examines the conceptual framework for internal quality assurance at Xiamen University and the different stages of its development. It also presents the rules and regulations which underpin IQA at XMU, and the structure, processes, tools, and instruments through which quality assurance at the university is implemented.

#### 3.1 The conceptual framework for IQA

Internal quality assurance at Xiamen University focuses largely on the enhancement of teaching and learning processes. IQA for teaching and learning is conceptualized at XMU as a dynamic, closed-loop management process, which works as an effective operational scheme to coordinate teaching processes. The conceptual framework underpinning IQA for teaching and learning at XMU comprises four components: goal setting, model design, process monitoring, and results review, as follows:

**Goal setting:** Setting goals for education by taking into consideration the needs of society and the nation, as well as individuals' career development needs. The goals include knowledge, capability, and competence requirements.

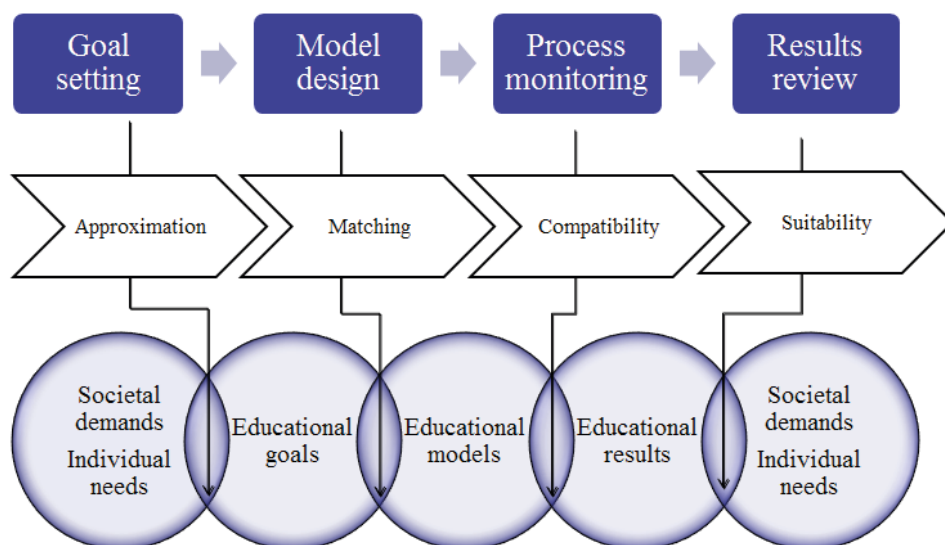
**Model design:** Translating the goals of education into processes including curriculum development, teaching and learning methods, teaching management, and allocation of resources.

**Process monitoring:** Monitoring organizational development and the deployment of material and human resources and teaching and learning processes in order to ensure that the goals of education are met.

**Results review:** Regularly fine-tuning the goals and models of teaching and learning processes on the basis of graduate tracer studies and feedback from employers.

The system of IQA for undergraduate education at XMU is described in *Figure 3.1*.

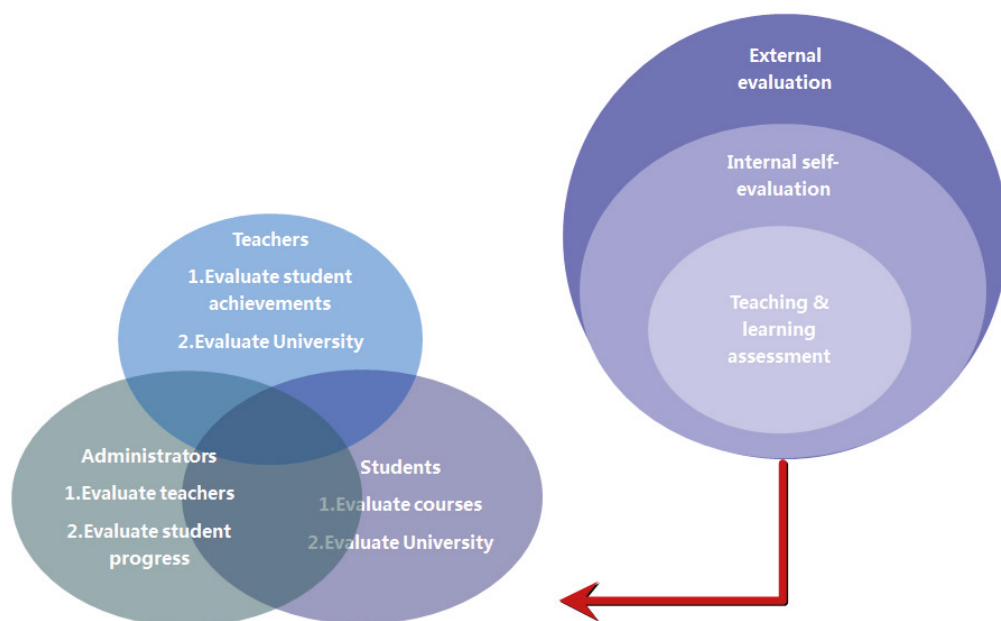
**Figure 3.1** System of IQA for undergraduate education at XMU



Since 2005, the university has further enhanced its conceptual framework for the internal quality assurance of undergraduate teaching (see *Figure 3.2*), dividing it into the following three levels: external evaluation, internal self-evaluation, and teaching and learning assessment. Internal evaluation is part of external evaluation, and is also the ultimate goal

of the latter. Internal evaluation should adopt the same criteria as external evaluation, and the improvement of the former will lead to the enhancement of the latter. The assessment of teaching is grouped within internal self-evaluation, and comprises the collection of information from multiple stakeholders including teachers, students, and administrators.

**Figure 3.2 IQA framework of XMU undergraduate teaching**



***Laying the foundations for IQA: rules and regulations and management information system***

Over the years, the university has laid the foundations for internal quality assurance by developing an infrastructure of rules and regulations related to all aspects of education, including implementation of teaching plans, course preparation, classroom teaching, after-class assignments, mid-term and final exams, experiments, internship, and graduation theses. Among the rules and regulations developed are regulations on course evaluation management, the code of practice for examinations and tests, the policy and regulations on graduation theses, the guidelines for undergraduate coursework competitions, and regulations on the establishment and management of undergraduate internship. The university has made relevant specifications and set clear criteria with regard to rules and regulations relating to teaching practice, forming, in effect, a quality manual for teaching at the university.

The university’s colleges define their own quality criteria for teaching performance, based on these rules and regulations, which ensure teaching practice is of a consistent standard.

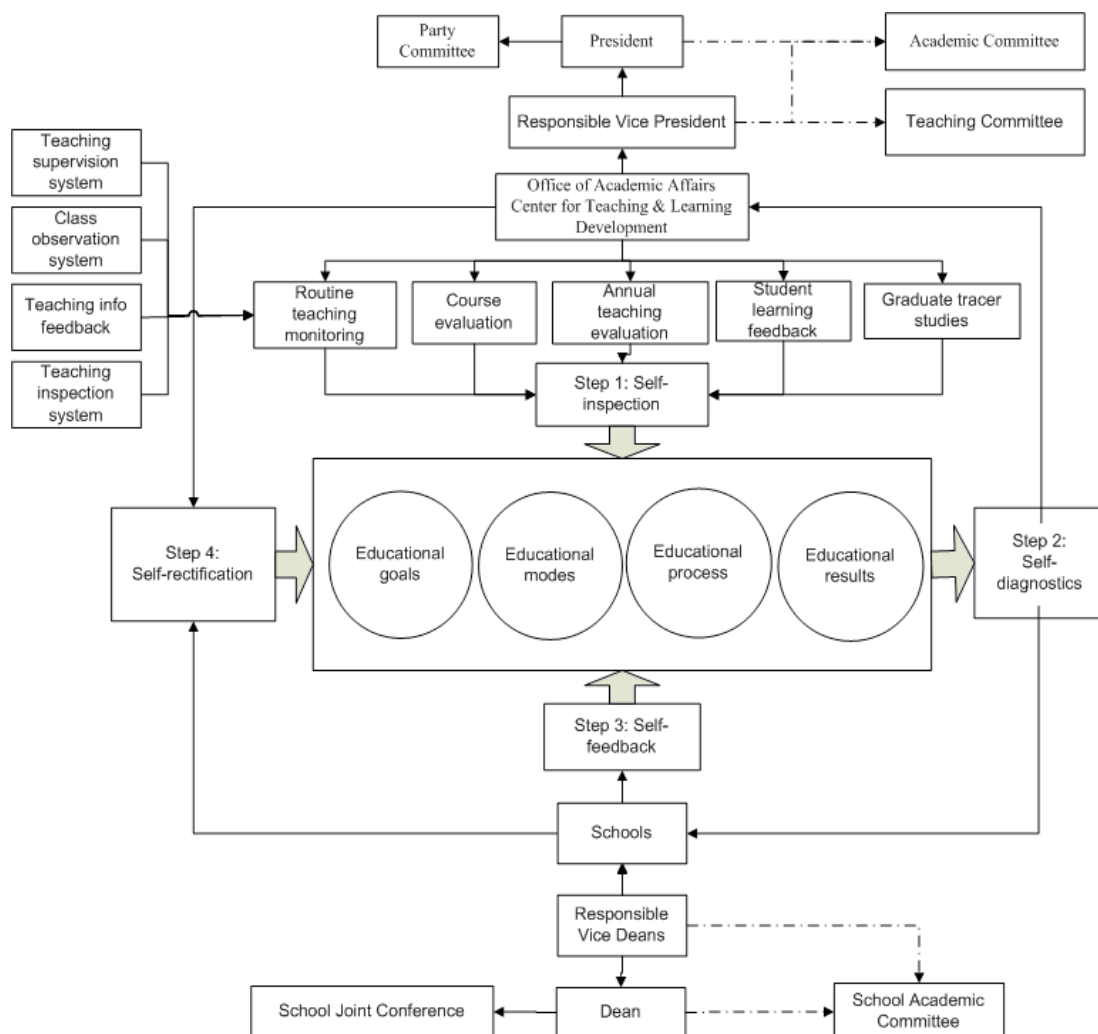
To further promote the standardization of teaching, the university has developed an advanced teaching management information system and a teaching information network. These systems generate information through which the education of every student, from matriculation to graduation (from the opening, scheduling, selecting, and evaluating of courses to final approval on graduation), can be monitored. The implementation of the systems has greatly promoted teaching management, and brought about a paperless, networked, and digitized teaching management system, making it possible to streamline, normalize, and standardize management work. The systems have been upgraded as they have developed and now represent a unified approach to teaching management, data analysis, and services for staff and students.

### Developing procedures for the quality monitoring of teaching and learning

From the 1990s on, XMU introduced a number of quality assurance measures, including managing courses by category, dividing courses into fundamental and elective, and introducing new rules to evaluate teaching quality, in areas such as course preparation, lecturing, discussion, assignments, and examination.

Following a number of exploratory efforts, the university developed a system involving the four main elements of self-inspection, self-diagnosis, self-feedback, and self-modification (see Figure 3.3) to monitor routine teaching activities and evaluate teaching quality.

**Figure 3.3** Workflow of IQA activities at XMU



- a. **Self-inspection:** This component usually comprises regular and special self-inspection. Regular self-inspection involves teaching supervision, teaching observation (class auditing), teaching feedback (from students), and mid-term teaching inspection, as well as routine work responding to problems that arise during teaching. Special self-inspection includes annual undergraduate evaluation, annual teaching inspection (by experts), and annual course evaluation (by graduates and undergraduates).
- b. **Self-diagnosis:** The university's Office of Academic Affairs issues reports on self-inspection. These reports, which are based on factual evidence and data, help summarize and analyse achievements and challenges in teaching, providing suggestions and opinions. The reports are forwarded to the vice-president in charge

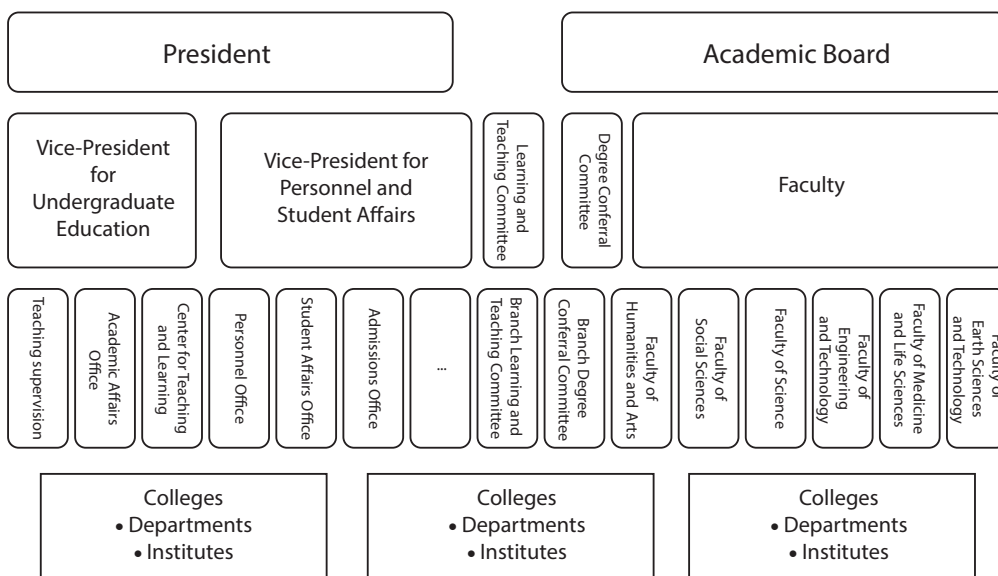
- of academic affairs, with copies sent to deans and other college-level leaders with responsibility for academic affairs, who conduct self-diagnosis on specific problems.
- c. **Self-feedback:** The Office of Academic Affairs holds a university-wide undergraduate evaluation feedback meeting or workshop each semester. Attendees typically include: deputy deans of academic affairs from various colleges, directors of various departments, and staff in charge of undergraduate education, as well as staff from the Office of Academic Affairs, the Teachers' Development Centre, the teaching inspection team, and the teaching committee. Drawing on the feedback provided by participants, the head of the Office of Academic Affairs summarizes achievements, highlights any problems, and provides relevant guidance.
  - d. **Self-rectification:** In following up recommendations from the feedback meeting or workshop, colleges must organize relevant activities of self-analysis and self-criticism and come up with self-modification plans. The Office of Academic Affairs must also propose general modification plans and measures with reference to the requests of experts at the feedback meeting.

### 3.2 The IQA structure at Xiamen University

Xiamen University does not have a dedicated IQA office or unit at university level, although various university administrative offices implement its IQA policies and measures within the scope of their responsibilities. For example, the Office of Academic Affairs is responsible for managing academic affairs; the Office of Student Affairs is responsible for managing student affairs, including graduate employment; the Centre for the Development of Teaching and Learning is responsible for faculty development and research on teaching and learning; and the Office of Human Resources handles faculty and staff performance evaluation.

The IQA structure at XMU is characterized by three features. First, there is a high level of collaboration among different administrative offices, colleges, and departments. Second, there is considerable involvement in the system of managers, teachers, and students. Third, there is a good integration of academic, administrative, and student affairs management (see Figure 3.4).

**Figure 3.4 IQA Structure of XMU**



### 3.3 IQA instruments for teaching and learning, employability, and management

IQA processes at XMU are implemented using a number of tools particularly geared to the enhancement of teaching and learning, employability of graduates, and management. The perceptions academic and administrative staff have of these tools are investigated in the empirical analysis, presented in *Chapter 5*.

#### ***IQA tools geared to teaching and learning and employability***

Over the years, a number of tools for internal quality assurance have been introduced at Xiamen University, generally in response to the requirements of external quality assurance at national level. These tools are, in general, intended to enhance the quality of teaching and learning at the university, though some are specifically geared to strengthening graduate employability.

##### *Course assessment*

Course assessment was introduced at XMU in 1999 and is one of the oldest IQA tools in use at the university. A new course assessment form was developed in 2011/12, drawing on the experience of the University of Michigan in the United States (Kolb, 1984: 21). It covers a number of dimensions, namely, teacher punctuality, attitudes towards students, course preparation, mastery of subject knowledge, classroom activities, student performance assessment, time allocation, interaction with students, feedback to questions, and classroom management. These are followed by an open question inviting suggestions for course improvement.

Special working groups have been set up to process and analyse the data obtained from course assessment at different levels of the university. The groups identify problems and give feedback to relevant colleges and teachers (Xiamen University, 2015b). Colleges are encouraged to reward high-performing teachers and to support those who need to improve their teaching quality through face-to-face meetings, hands-on direction, and guidance.

##### *Teaching supervision*

Teaching supervision at XMU takes various forms. The university set up a supervisory system as early as 1997 to oversee undergraduate education. This system is implemented by a team of retired teachers, who help investigate relevant issues, maintain order, enforce the rules of exams, and facilitate timely reaction to feedback from students. Their presence has done much to promote quality education.

Since 2005, the university has required administrators and leaders at all levels to engage in classroom observation, and to develop a deeper understanding of the quality of teaching. Senior leaders must observe a lecture at least four times a year, administrators in the Office of Academic Affairs at least 12 times, other mid-level administrators six times, and college officers at least 10 times.

Mid-term inspection of academic affairs is another well-established practice for teaching supervision. Class leaders collect feedback from other students and report to the counsellors and deans in charge of academic affairs. A mid-term teaching inspection meeting is convened in each college. The dean of teaching, the deputy secretary of student affairs, and counsellors are required to attend to respond to issues identified by students and deliver feedback to relevant teachers.

### *Programme evaluation by student surveys*

The new-student educational experience survey and the educational experience survey for graduating students measure the level of student satisfaction with programme curriculum and assessment methods. The former has been conducted every autumn since 2008, while the latter has been given to students each spring since 2009. The educational experience survey for graduating students concerns students' level of satisfaction regarding professional development and academic growth. Results of the surveys are compiled in the *Student Educational Experience Report* (Xiamen University, 2011b). The results give the university important empirical information that helps departments and university leaders to assess undergraduate programmes.

### *Programme monitoring (normal-state data checks)*

The university has for some time monitored the quality of programmes through the regular revision of professional development programmes and the establishment of management standards for teaching materials used in academic programmes. In 2005, the university started monitoring the programmes including syllabuses in various majors as well as changes to academic content and curricula evaluation (Xiamen University, 2011b). In 2007, a reference index system for the evaluation of newly established majors was introduced, requiring the establishment of a database to monitor the quality of newly established majors.

### *Student workload assessment*

Since the launch of the student educational experience survey in 2008, XMU has conducted student workload assessments to examine the total number of classes each student takes, the number of English-taught courses they take, the amount of coursework they are assigned, and the requirements for completing those assignments. Student workload assessment thus gathers information on each course, and monitors its work schedule and its students' workloads (Xiamen University, 2011a). This enables the university to better understand the workload of students, to increase the effectiveness of education in the classroom, and to facilitate a better environment for study.

### *Graduate tracer studies*

Graduate tracer studies evaluate the relevance of education offered at university by tracking the career status and professional progress of recent graduates. This is done using two-part questionnaires. The first part asks graduates to indicate their employment status, the nature and prospects of their position (if they are employed), and the location of their employment. The second asks them for their opinions about the education and professional development they received at XMU. They are also asked to provide any suggestions they might have on how to improve the university's job-placement services, development system, professional guidance, and entrepreneurial training (Xiamen University, 2011a).

The university also undertakes a comprehensive analysis of the level and quality of employment of each of its colleges' graduates. This analysis has nine parts, including questions about graduates' first-time employment rate, their yearly employment rate, their level of satisfaction with their employment, their position at work, their salary and amount of scholarship money, how closely related their profession is to their field of study, the proportion of graduates to participate in the survey, the age of respondents, and graduates' entrepreneurial status (Xiamen University, 2014c).



### *Employer satisfaction survey*

The employer satisfaction survey aims to understand the needs of employers on the basis of their evaluation of XMU graduates and to improve the university's education and professional development through their suggestions. This survey was first conducted in 2011 with employers present at the campus jobs fair. The content of the survey included questions about employers' overall satisfaction with XMU graduates, their reasons for choosing XMU graduates, their assessment of the abilities and work-readiness of XMU graduates, and the workplace performance of XMU graduates.

### *Employer involvement in study programme revision*

In 2012, XMU involved employers in the revision of its undergraduate academic programmes. This revision allowed the university to identify employers' needs and take on board their suggestions concerning preparation for the employment market. This led to a series of reforms to strengthen the employment orientation of various programmes. For example, the School of Management established a general education programme for industrial and commercial management. The College of Architecture and Civil Engineering introduced a curriculum focusing on 'civil engineering application and materials'. The School of Management began inviting executives from various companies to give guest lectures, in order to improve its academic programme plans and teaching methods.

### *Jobs market analysis*

Collecting information on the jobs market helps the university facilitate the placement of graduating students (Zhu Yan, 2013). In order to provide appropriate resources for graduating students and other involved parties, the Office of Student Affairs undertakes an analysis of the jobs market for graduating students and publishes the results. The analysis includes the demands of the jobs market and information about jobs fairs and recruitment meetings. The results are distributed in the form of annual assessment reports on jobs market quality for graduating students and an employment opportunity analysis for graduating students.

### *Student competency assessment*

Student competency assessment forms part of the employer satisfaction survey at XMU. Student competency is evaluated in terms of how graduates perform in the workplace and how well-prepared they are for the workplace. Performance in the workplace is assessed in terms of written and verbal communication skills, ability to innovate, analytical problem-solving skills, group management ability, self-study skills, adaptability, performance under pressure, workplace comportment, ability to work with others, and sense of work responsibility. Preparedness for work is assessed in terms of professional knowledge, fundamental knowledge, extra-curricular knowledge, English proficiency, computer proficiency, and research ability (Xiamen University, 2014c).

## ***IQA Tools geared to management***

The university uses the following IQA tools for the enhancement of management.

### *Service-level agreement*

Service-level agreement is synonymous with personnel management at XMU. The personnel management system is based on a set of regulations concerning employment conditions. These regulations cover employment opportunities, employee contracts, employee evaluations, and dismissal procedures. Personnel management is undertaken by the university's Office of Human Resources and Appointment Committee (of which the university's president is director), based on these regulations. The office summarizes,

reapproves, and decides whether or not to continue employing an individual. The results are then recorded and filed. The notice for assessment is provided by the Office of Human Resources, and the paper assessment by the official in charge. This enables them to assess the employee's performance, fulfilment of responsibilities, and development.

#### *Target-level agreement*

Target-level agreement at the university is based on the self-assessment of colleges and departments at XMU. It aims to encourage colleges and departments to improve their educational, research, and social outputs, and to make the management of these tasks more scientific and standardized. For example, in 2013, each college at the university evaluated its final exams and student performance levels, its use of educational funds, and the status of its unified major programmes. In 2014, XMU examined teachers' PowerPoint presentation (PPT) materials, student assignments, exam papers, and graduation thesis quality of each course at each college, etc. The evaluations resulted in the introduction of a number of adjustment plans which focused on university management goals for annual work planning and resource allocation.

#### *Unit self-evaluation*

The main way in which XMU's administrative units assure the continued quality and efficiency of their work is through unit self-evaluation, a process that monitors management and personnel performance. Unit self-evaluation aims to facilitate the improvement of administrative work within units as well as supporting the university's efforts to provide the best possible educational experience for its students. Through unit self-evaluation, administrative units managed their work responsibilities and provided relevant support to the university.

#### *Certification through international accreditation*

XMU's School of Management received international accreditation from the Association of MBAs (AMBA) and business school accreditation from the European Quality Improvement System (EQUIS) in 2011 and 2013, respectively. It has also made significant strides toward attaining business school accreditation from the Association to Advance Collegiate Schools of Business (AACSB).

AMBA accreditation concerns master's programmes (including EMBA, DBA, and MBM programmes). EQUIS focuses on all the activities within a business school required to meet international standards of quality. AACSB accreditation encompasses all business education programmes.

These three major international accreditation systems are used to certify business programmes at XMU. They cover all aspects and elements of business education, including departmental administrative mechanisms, such as target markets and marketing strategy; student recruitment and acceptance procedures and policies; student quality control and student service management; programme planning and syllabus content, study goals and assessment; hiring, management, and development of staff; research and development management and policy; school administrative resources and administrative logistics support systems; and alumni and enterprise relations management.

## 4. Findings of the empirical study

This chapter presents the findings of the empirical study together with descriptions of the research methodology used. The findings relate to: (1) the awareness of academic and administrative staff of the IQA system, and their involvement in it; (2) the effects of the IQA system on teaching and learning, graduate employability, and management; (3) the internal and external conditioning factors; and (4) overall appreciation of the effectiveness of the IQA system.

### 4.1 Research methodology

A multi-stakeholder approach was taken to the research, collecting information on the perceptions of academic and administrative staff, students, academic and administrative leaders, and heads of department and programmes.

The research used both quantitative and qualitative methods. The perceptions of academic and administrative staff were investigated through two online surveys, specifically adapted to those IQA instruments with which academic and administrative staff at XMU were familiar. Semi-structured interviews were also conducted to capture in greater depth the perceptions of senior academic officials and students. The interviewees included the university's vice-president of academic affairs, heads of administrative units, departments, and research institutes, and undergraduate representatives.

Because there is no central structure for internal quality assurance at Xiamen University, the research team had to consolidate information and data from all the different offices and units involved. This increased the risk of relevant information on existing IQA tools being omitted from the research.

Any international comparative study of education inevitably reflects the cultural understandings of the researchers, which has implications for the cross-cultural adaptability of the study. In preparation for the case study, the research instruments were translated from English into Chinese. However, differences in language, culture, university management systems mean there are likely also to be differences between the research group and the project designers, between the research group and the survey respondents, and between the project designers and the survey respondents in terms of their understandings of survey content, tool designs, and key terms.

### 4.2 Participation statistics: Online surveys

#### ***Academic staff***

Some 853 academics, 31.56 per cent of the total number (2,703), responded to the questionnaire survey. Just over half (453 or 53.1 per cent) of the returned questionnaires were considered valid. The 453 academics whose completed questionnaires were considered valid accounted for 16.76 per cent of the total number.

Respondents indicated the academic discipline in which they worked, as shown in *Table 5.1* below. Although there was a relatively broad spread of responses in terms of discipline, staff from natural sciences were best represented at 24.3 per cent. This was followed by the humanities (16.3 per cent), engineering (12.8 per cent) and formal sciences (12.4 per cent).

**Table 4.1 Disciplines (academic staff)**

Description	Percentage
Social sciences	9.3%
Humanities (philosophy, religion, philology, etc.)	16.3%
Natural sciences (biology, chemistry, geography, etc.)	24.3%
Formal sciences (mathematics, informatics, statistics, etc.)	12.4%
Business and management	4.4%
Education (teacher training, cognitive sciences, etc.)	4.6%
Engineering (materials engineering, logistics, etc.)	12.8%
Life and health (medicine, psychology, nursing, etc.)	4.2%
Law	7.9%
Economics	2.4%
Others, namely computer science (5), architecture (13), management information system (1), English (2)	1.3%
Total number of respondents	*100%

\*Note: The real value of 99.9 per cent is rounded off to 100 per cent.

Almost a quarter (24.5 per cent) of the 453 respondents were full professors; 40.3 per cent were associate professors; 23 per cent were assistant professors; 9.2 per cent were lecturers; 2.9 per cent were assistants; and 2 per cent did not indicate their academic position (See Table 4.2).

**Table 4.2 Academic positions (academic staff)**

	Full professors	Associate professors	Assistant professors	Lecturers	Assistants	Other	Total
Percentage	24.5%	40.3%	23.0%	9.2%	2.9%	2.0%	100%

More than a third (36 per cent) of the respondents held a leadership function in academic administration: 18.1 per cent were heads (or deputy heads) of programme; 7.7 per cent were heads (or deputy heads) of department; 4.2 per cent were deans (or vice-deans) of faculty; 9.9 per cent were members of a committee or board. Over a quarter (26.3 per cent) did not hold a leadership function in academic administration, while 37.7 per cent did not indicate whether they held a leadership function or not (See Table 4.3).

**Table 4.3 Leadership positions (academic staff)**

	Head (or deputy head) of programme	Head (or deputy head) of department	Dean (or vice-dean) of faculty	Committee or board member	'I do not want to answer'	Other	Total (%) (number)
Percentage	18.1%	7.7%	4.2%	9.9%	37.7%	26.3%	100% (453)

Note: This is a *multiple-choice* question, 10 respondents hold 2 positions and 1 respondent holds 3 positions.

As seen in Table 5.4, those with between 11 and 20 years of working experience accounted for the largest group of respondents (31.6 per cent). Around one third (29.4 per cent) of

academic respondents had worked at the university for less than five years, while 26.5 per cent had between five and 10 years of experience at the university. Just over one in 10 of the academic respondents indicated they had worked for more than 20 years (12.6 per cent).

**Table 4.4 Length of service (academic staff)**

	Less than 5 years	Between 5 and 10 years	Between 11 and 20 years	More than 20 years	Total
Percentage	29.4%	26.5%	31.6%	12.6%	100%

### **Administrative staff**

A total of 399 administrators, 21.9 per cent, responded to the questionnaire survey. Around two-thirds (263 or 67.4 per cent) of the survey responses were considered valid. These 263 respondents accounted for 14.43 per cent of the total number of administrative staff at XMU.

The majority of respondents were from either student services (30 per cent) or human resource management (15.2 per cent) (see *Table 4.5*). None of the other fields accounted for more than 10 per cent.

**Table 4.5 Fields (administrative staff)**

Description	Percentage
Strategic/academic planning	1.1%
Financial management	3.0%
Quality assurance/quality enhancement	6.5%
Institutional research	3.4%
Facility management (incl. transport services)	9.1%
Human resource (administrative) management	15.2%
Academic staff development	2.7%
Student services (registration, assessment, counselling)	30.0%
IT services	8.7%
Public relations/marketing	1.5%
Legal affairs	0%
Research service	2.3%
Library	1.5%
International relations	3.4%
Institutional leadership	8.7%
Other	2.7%
Total number of respondents	*100%

Note: \*The real value of 99.9 per cent is rounded off to 100 per cent.

*Table 4.6* shows that the majority of administrative respondents held a master's degree, accounting for 62 per cent of the total. Those with bachelor's or doctoral degrees numbered 22.4 per cent and 14.1 per cent, respectively. The smallest proportion of staff cited vocational training as their highest educational achievement (0.4 per cent). The proportion whose highest attainment was a secondary school diploma also accounted for less than 1 per cent of the total.

**Table 4.6 Highest educational achievement (administrative staff)**

	Secondary school diploma	Vocational training	Bachelor	Master	PhD/ Doctorate	Other	Total
Percentage	0.8%	0.4 %	22.4%	62.0%	14.1%	0%	100%

Less than half (44.9 per cent) of administrative staff participants categorised themselves as holding senior leadership positions, while more than half (54.4 per cent) indicated that they were in the non-leadership positions (see Table 4.7). Among those top-level leadership positions, head (or deputy head) of unit and head (or deputy head) of section accounted for 16 per cent and 28.9 per cent, respectively.

**Table 4.7 Leadership positions (administrative staff)**

	Head (or deputy head) of administration	Head (or deputy head) of unit	Head (or deputy head) of section	Non-leadership categories	Total
Percentage	0.8%	16.0%	28.9%	54.4%	100%

Most administrative respondents had worked at XMU for fewer than 20 years (see Table 4.8). Around a third of administrative staff had worked either for fewer than five years (30 per cent) or for between 11 and 20 years (32.3 per cent). Those with more than 20 years of experience at the university accounted for 11.8 per cent of the total.

**Table 4.8 Length of service (administrative staff)**

	Less than 5 years	Between 5 and 10 years	Between 11 and 20 years	More than 20 years	Total
Percentage	30%	25.9%	32.3%	11.8%	100%

### 4.3 Participation statistics for interviews and focus group discussions

The vice-deans of academic affairs in five XMU colleges (the College of Humanities, the School of Management, the School of Architecture and Civil Engineering, the College of Foreign Languages and Cultures, and the School of Physics and Mechanical and Electrical Engineering) were interviewed for the case study. The interviewees responded to the questions in the context of their work experience and job duties.

Twelve heads of departments and research institutes within these colleges were also interviewed. The interviewees responded to the questions on the basis of their personal work experience and main duties.

The 28 students interviewed for the case study were student representatives from the university's Siming and Xiang'an campuses, representing 15 different colleges and all years of study. Their academic programmes included English, French, financial management, archaeology, philosophy, automation, architecture, aerospace, mechanical engineering, computer science, and physics. In addition, focus group interviews were conducted with 17 student representatives from the School of Information Science and Engineering, the Medical College, the School of Life Sciences, the International College, the College of the Environment and Ecology, and the School of Pharmaceutical Sciences.

The heads of five administrative units – the Office of Academic Affairs, the Office of Student Affairs, the Office of International Cooperation and Exchange, the Office of Human Resources, and the Office of Development and Planning – were also interviewed.

**Table 4.9 Interview and focus group discussion participants**

<b>Members of the Rectorate</b>		
<b>Interviewed actor(s)</b>	<b>Type of interview</b>	<b>Number</b>
Vice-president of academic affairs	Individual interview	1
Head of administration	Individual interview	5
<b>College of Humanities</b>		
<b>Interviewed actor(s)</b>	<b>Type of interview</b>	<b>Number</b>
Vice-president	Individual interview	1
Heads of department	Individual interview	1
Student representatives	Focus group interview	2
<b>School of Economics</b>		
<b>Interviewed actor(s)</b>	<b>Type of interview</b>	<b>Number</b>
Vice-president	Individual interview	1
Heads of department	Individual interview	3
Student representatives	Focus group interview	1
<b>School of Physics and Mechanical and Electrical Engineering</b>		
<b>Interviewed actor(s)</b>	<b>Type of interview</b>	<b>Number</b>
Vice-president	Individual interview	1
Heads of department	Group interview	1
Student representatives	Focus group interview	1
<b>College of Foreign Languages and Cultures</b>		
<b>Interviewed actor(s)</b>	<b>Type of interview</b>	<b>Number</b>
Vice-president	Individual interview	1
Head of department	Individual interview	4
Student representatives	Focus group interview	2
<b>School of Architecture and Civil Engineering</b>		
<b>Interviewed actor(s)</b>	<b>Type of interview</b>	<b>Number</b>
Vice-president	Individual interview	1
Head of department	Group interview	2
Student representatives	Focus group interview	2

#### 4.4 Awareness of and involvement in the quality assurance system

##### ***Awareness of and involvement in quality policy and the quality manual***

As was mentioned in *Chapter 3*, Xiamen University adopted a master plan for reform in 2014. The master plan places special emphasis on the enhancement of the quality of teaching and learning, and advocates a student-centred approach to education. The main lines of action relating to the enhancement of the quality of undergraduate programmes effectively constitute the current quality policy for education at Xiamen University.

As indicated in Chapter 4, Xiamen University has developed a comprehensive set of academic and administrative rules and regulations for education over the years. They comprise the *Fundamental Regulations on Undergraduate Teaching* (2005), the *Administrative Provisions on the Undergraduate Supervisor System* (2013), the *Administrative Provisions on Course Evaluations* (2015), the *User's Manual for the Student Administration System*, and the *Handbook for Employment Guidance*. This comprehensive set of rules and regulations represents the equivalent of a quality manual for IQA at the university.

The effective implementation of the IQA system requires that all stakeholders are aware of the quality policy and the rules and regulations (quality manual) pertaining to internal quality assurance and take a positive view of them. For that reason, the study investigated the level of awareness and the perceptions of staff of both sets of documents.

*Survey questionnaire data (academic and administrative staff)*

The surveys showed that a large majority (84.8 per cent) of academic staff were aware of the quality policy. Over half of them (55.2 per cent) believed that the document was useful for their work. An even bigger majority (85.6 per cent) of administrative staff were aware of the quality policy and over half of them (64.3 per cent) said the document was useful for their work (See Table 4.10).

**Table 4.10 Awareness of quality policy**

	Academic staff	Administrative staff
Yes, this document exists and is useful for my work	55.2%	64.3%
Yes, this document exists but is not useful for my work	13.9%	8.4%
Yes, it exists but I do not have to deal with it	15.7%	12.9%
No, my university does not have such a document	0.9%	0%
I don't know	14.3%	14.4%
Total	100%	100%

A similarly large proportion (88.7 per cent) of academic staff were aware of the quality manual (rules and regulations), while 63.36 per cent said it was useful for their work. Most administrative staff (90.87 per cent) were aware of the manual and 76.05 per cent believed that it was useful for their work (see Table 4.11).

**Table 4.11 Awareness of quality manual**

	Academic staff	Administrative staff
Yes, this document exists and is useful for my work	63.36%	76.05%
Yes, but this document is not useful for my work	14.13%	7.22%
Yes, it exists but I do not have to deal with it	11.26%	7.60%
No, my university does not have such a document	1.99%	1.14%
I don't know	9.27%	7.98%
Total	100%	100%

The questionnaire surveys suggest that the vast majority of both academic and administrative staff at XMU are aware of the quality-related documents. However, administrative staff indicated a slightly stronger recognition of the existence of the



university's IQA quality policy and quality manual (rules and regulations), and were more inclined to recognize the usefulness of the documents and manual for their work.

### **Awareness and involvement in IQA Tools**

Both academic and administrative staff were asked whether they were involved in the IQA tools/instruments described in *Chapter 3*. They were also asked whether they received feedback from these instruments, whether they used this feedback, and whether they found the tool, overall, to be useful.

The survey questionnaire used a Likert scale ranging from five (very much) to one (not at all). Average values were calculated to make the results comparable across IQA instruments, assessment categories (involvement, feedback, use, and usefulness), and actor groups.

#### *Survey questionnaire data (academic and administrative staff)*

Asked about their involvement in IQA tools related to teaching and learning and employability, academic staff rated their involvement in course evaluation (by student surveys) the highest, with an average with 3.90. Unsurprisingly, academic staff have less involvement in employability-related IQA instruments (student competency assessment, graduate tracer studies, employer surveys, employer involvement in programme revision, and jobs market analysis). Most academic staff are typically not directly involved in the administration of these tools, or in the analysis of their results, though they may receive feedback from them for programme and course revision. It is striking that the average values pertaining to feedback are below 3.0 for all tools, with the exception of course evaluation.

**Table 4.12 Academic staff involvement in IQA tools on T/L and employability**

	Academic staff			
	Involvement	Feedback	Use	Usefulness
Course evaluation	3.90	3.11	2.93	3.20
Programme evaluation	3.24	2.94	2.87	3.06
Teacher supervision	2.98	2.96	2.93	3.07
Programme self-evaluation	3.25	2.96	3.25	3.03
Programme monitoring	3.10	2.92	2.88	3.05
Student workload assessment	2.33	2.55	2.52	2.72
Student competences assessment	2.43	2.66	2.69	2.98
Graduate tracer studies	2.15	2.48	2.50	2.81
Employer satisfaction surveys	1.96	2.32	2.36	2.61
Employer involvement in study programme revisions	2.00	2.32	2.37	2.65
Jobs market analysis	2.00	2.46	2.47	2.81

Note: Averages were calculated as follows: 1. A numerical value was attributed to response categories with, for instance, 5 = very much and 1 = not at all. 2. Averages were then calculated in the following way: (number of responses x 5) + (number of responses x 4) + (number of responses x 3) + (number of responses x 2) + (number of responses x 1) / the total number of responses.

Administrative staff were most involved in unit self-evaluation, which had the highest average of 4.08, followed by service-level agreements (with an average of 3.51). Their involvement in unit external evaluation scored low at 2.66, while their involvement in

certification had an average of only 2.39. When it came to feedback and use, all averages were below the average value of 3.00. In terms of usefulness, unit self-evaluation, unit external evaluation and service-level agreement scored the highest (see Table 4.13).

**Table 4.13 Administrative staff involvement in IQA tools on management**

	Academic staff			
	Involvement	Feedback	Use	Usefulness
Unit self-evaluation	4.08	2.66	2.39	3.51
Unit external evaluation	2.66	2.72	2.77	3.37
Certification	2.39	2.68	2.68	2.72
Target-level agreement	2.67	2.77	2.78	2.82
Service-level agreement	3.51	3.15	3.17	3.44

Note: All figures are averages (see Table 4.12 for explanation).

#### *Interview and focus group discussion data*

Academic and administrative leaders were asked about the internal quality assurance activities at the university. Although none of them explicitly provided answers in reference to either quality-related documents or IQA instruments, they agreed that the main contribution of IQA is to the overall improvement of the university, with a strong focus on teaching and learning.

The head of the Centre for Teaching and Learning Development viewed IQA as a tool for the development of all aspects of education, from teaching and learning to management. The head of the Office of Student Affairs thought IQA contributed to the quality of student education, including development of capacity for learning and research, physical and mental wellbeing, and cultural competence. The head of the Office of Human Resources considered it necessary for the quality of the university's operations and management. The heads of the five administrative units agreed that IQA is a critical part of the university's strategy, and that the development of an efficient and effective IQA system is crucial to its self-enhancement and growth.

Two of the deans who took part in the interviews argued that the biggest difference between the university's IQA and that of other institutions was its leadership's commitment to undergraduate teaching. The heads of the Centre for Teaching and Learning Development, the Office of Human Resources, and the Office of Development and Planning thought that it was the student-centred nature of the university's IQA system and its commitment to talent cultivation that made it unique.

The students who took part in the focus group discussions were asked which activities for internal quality assurance they were familiar with. The IQA instruments in which they said they were most often involved were 'evaluation of courses', 'student surveys', 'jobs market analyses', and 'graduate tracer studies'. They are also familiar with 'teacher supervision', 'assessment of students' academic capabilities', and 'involvement of employers in study programme revision'. Most of the students (24) commented that internal quality control instruments were helpful to some degree, while three said that the work did not help to improve teaching quality this year, but may help enhance it next year. Below are some of the students' comments:

Our college collects students' opinions on classes. However, the feedback mostly benefits subsequent students. The method is simple yet effective, judging from its long-term influence. (Student, College of Medicine, class of 2015)

The IQA instruments that I know include course evaluation, student surveys, teacher supervision, and assessment of students' competences. I believe that if these instruments are thoroughly implemented, they will enhance the quality of education, as the teaching process is closely associated with learning outcomes, and these instruments [are a] bridge between 'teaching' and 'learning'. (Student, School of Life Sciences, class of 2016)

Some students are not serious about course evaluation, but I don't agree with them because the evaluation leads to the improvement of performance among teachers. Teachers with relatively low points should discuss with students and improve themselves. (Student, School of Chemistry, class of 2016)

Despite the variation in their perceptions of IQA activities, the students generally felt that providing quality education was the central mission of a university, and that IQA instruments were important to achieving this.

## 4.5 Effects on teaching and learning, employability, and management

### ***Effects on teaching and learning***

*Survey questionnaire data (academic staff)*

In the online survey, academic staff were asked for their perceptions of a number of possible effects that IQA tools can have on teaching and learning (see *Table 4.14*). The average values were again calculated using the Likert scale, with values ranging from one to five. It is striking that academic staff had, overall, a rather positive appreciation of IQA tools and their effects across all the categories. No single IQA instrument stood out as having a particularly powerful effect. Nor was any particular effect (improvements to overall coherence of study programmes, content coverage of courses, content coverage of study programmes, teaching performance, student assessment, or learning conditions) strongly in evidence across the instruments.

*Interview data from academic leaders on the effects of IQA on teaching and learning*

In the interviews, academic leaders were asked how much they knew about certain IQA tools and their effects on teaching and learning. The following comments were made by the dean of the Department of Finance during interview:

Students are subject to mid-term examinations every semester. Two teachers from the Office of Academic Affairs met with student representatives. By attending this meeting, the deans and teachers gained a better understanding of the curricular design and teaching contents. For instance, in the past, many students complained about the overlapping of teaching content and knowledge between different specialized courses. Now we will adjust the teaching programme. There is a meeting of teachers at the end of every semester. Full professors create a course team and, when teaching contents within the team overlap, the team leader will step in to coordinate.

In addition to teaching quality control, adjustments will also be made according to the changes in the school system and teaching plan. For instance, since the introduction of the system of enrolment by category, new syllabuses have been developed and credits have been reduced from 160 to 140.

**Table 4.14 Effects of IQA tools on T/L (academic staff)**

	Course evaluation	Programme evaluation	Teacher supervision	Programme self-evaluation	Programme monitoring	Student workload assessment	Graduate tracer studies	Employer satisfaction surveys	Employer involvement in study programme revisions	Jobs market analysis	Student competences assessment
Overall coherence of a study programme	3.37	3.29	3.27	3.41	3.31	3.07	3.14	3.12	3.13	3.29	3.29
Content coverage of courses	3.44	3.31	3.3	3.42	3.34	3.11	3.23	3.2	3.19	3.19	3.34
Content coverage of study programmes	3.18	3.15	3.1	3.24	3.15	3.05	3.23	3.16	3.13	3.29	3.2
Teaching performance	3.48	3.33	3.38	3.45	3.3	3.1	3.15	3.12	3.09	3.18	3.22
Student assessment system	3.25	3.15	3.15	3.2	3.17	3.01	3.12	3.1	3.07	3.17	3.26
Learning conditions	3.12	2.64	3.13	3.22	3.12	3.12	3.11	3.06	3.02	3.14	3.12

Note: All figures are averages (see *Table 4.12* for explanation).

In the interviews, the students were also asked for their perceptions of the effects of IQA on teaching and learning, specifically ‘the effects of IQA on the improvement of the quality of education’ with regard to specific IQA instruments. The majority of students agreed that IQA had positive effects on teaching and learning, saying that IQA contributes to the improvement of study programmes, course structure, and teaching methodology, as well as to the enhancement of student competences. A number of interesting effects were identified in the interviews.

Only a few years ago, first- and second-year students in the School of Medicine were still required to attend physics and chemistry courses and even some liberal arts courses; they didn’t have medicine-related courses until the later stages of their studies. They complained and the school changed the study programme, offering medicine-related courses to students in the first year of study. This allows the students to begin their coursework in their chosen programme as early as possible and to build a firmer foundation. Changes can be made to reflect the specific circumstances of different years of study, and no uniformity should be imposed. (Student, School of Medicine, class of 2015)

We did receive responses to our feedback on IQA monitoring, mostly from our college. For example, in the evaluation of a certain course, we commented that we didn’t think the instructor was fit to teach the course, and in the subsequent year, the students got a replacement, and the original instructor was reassigned. We’ve learned about this from the students a year behind us. And at a meeting with the faculty, we complained that we were unable to sign up for certain elective courses due to scheduling conflicts ... right after the meeting, the dean talked to the Office of Academic Affairs and the problem was resolved the next day. (Student, International College, class of 2016)

Our school has added the ‘fresher orientation’ course and moved up the diagnostics course by a semester, making our subsequent study easier. I’ve heard that all these changes in our study programme have been made because of the results received from the IQA instruments. (Student, School of Public Health, class of 2016)

As a matter of fact, changes made in response to our feedback usually take place for the students a year behind us, and we have no direct experience of the changes. Teacher supervision does make instructors more serious about lesson preparation. If the curriculum for the students in a certain year of study is unsound, changes are made for the students in the subsequent year. (Student, School of Pharmaceutical Sciences, class of 2015)

With respect to course evaluation, a student from the International College said:

I think course evaluation is very necessary. All courses are evaluated and all students are involved and express their opinions, achieving results that can’t be achieved in meetings between student representatives and the faculty. Take our college, for example. Last semester, we had a foreign teacher who just read his PowerPoint presentation in each lesson and who was not very serious about his lectures. We gave him a poor rating in the course evaluation, sparing the students in the year behind us from the suffering we had gone through. Although there are plenty of course evaluations, we do believe that they are necessary. (Student, International College, class of 2015)

### ***Effects on graduate employability***

In the online questionnaire, the perceptions of academic staff as to the effects of IQA instruments on the employability of graduates were investigated.

*Survey questionnaire data (academic staff)*

The survey results demonstrated that academic staff perceived jobs market analysis to have the biggest effect on graduate employability (with an average of 3.27), followed by student competences assessment, graduate tracer studies, and employer satisfaction surveys (with averages of 3.26, 3.23, and 3.23, respectively). Course evaluation and teacher supervision were felt to have less effect on graduate employability, both with an average of 2.99. This is not surprising as these IQA instruments are more directly geared to the enhancement of teaching and learning (see Table 4.15).

**Table 4.15 Effects of IQA tools on employability (academic staff)**

	Enhanced employability of graduates
Course evaluation	2.99
Programme evaluation	3.03
Teacher supervision	2.99
Programme self-evaluation	3.1
Programme monitoring	3.03
Student workload assessment	3.03
Graduate tracer studies	3.23
Employer satisfaction surveys	3.23
Employer involvement in study programme revisions	3.15
Jobs market analysis	3.27
Student competences assessment	3.26

Note: All figures are averages (see Table 4.12 for explanation).

*Interview and focus group discussion data*

In the interviews, the heads of administrative units and the deans of colleges talked about the effects of IQA on the employability of graduates in terms of the 'effects of IQA on the competitiveness of graduates in the jobs market'. The heads of the Office of Academic Affairs, the Office of Student Affairs, the Office of International Cooperation and Exchange, the Centre for Teaching and Learning Development, and the Office of Human Resources agreed that IQA produced positive effects on teaching and management, thereby improving the quality of education and graduates' competitiveness in the job market.

The dean of the Department of Finance said:

Some companies have signed training base agreements with our university and they will hire graduates if they are satisfied with students' performance during their internships. Feedback from employers helps us adjust our teaching content. For example, if some companies complain that my students are not very good at elementary accounting, we would then increase the percentage of accounting courses. Besides, professional financial managers are regularly invited to give presentations on practical topics, allowing students to learn more about real work.

Students were also asked for their perceptions of the effects of IQA instruments on graduate employability. They agreed that the university's IQA instruments had a positive effect on professional education and enhanced the employability of graduates. In

particular, they said that graduate tracer studies, the involvement of employers in study programme revision, and jobs market analyses were crucial to IQA:

I've been involved in graduate tracer studies. I once asked my counsellor about the overseas education experience of past students, and she gave me their contact information. Involvement of employers in study programme revision does take place in our school, where most graduates eventually find tech jobs. During the third term of the third year, the school arranges internships with selected companies for students. The executives of the companies offered us suggestions for the improvement of certain courses, such as [those on] JAVA and databases. Jobs market analyses are also carried out. Our school has a career counselling centre, which is operated jointly by postgraduate and undergraduate students. Every day, the centre releases some macro information, such as on the employment of graduates and part-time jobs and internship opportunities for students. (Student from Siming Campus, Junior, Department of Automation, School of Information Science and Technology)

Job information for graduates is listed on the college and university websites and [given out] through announcements in our group. We also have quality reports, information on overseas study programmes, and campus recruitment talks. The student counsellor offers us information by various means. (Student, freshman, College of Foreign Languages and Cultures)

I know something about the employers of our graduates. I understand that our department has launched a joint student training programme with Taikoo (Xiamen) Aircraft Engineering Ltd and some of our graduates are employed by the company. Our teachers focus on fostering students' interest in aerospace engineering in the first year, and provide career counselling in the third year. They steer students in the right direction and offer them information on market demands and so on. (Student, junior, Department of Aerospace, School of Aerospace Engineering)

In my college, graduate tracer studies are communicated to us through dedicated talks. We get a lot of information from such talks, especially information on the employment status of graduates of certain academic programmes, on graduates' employability, and on career development paths. (Student, junior, College of Foreign Languages and Cultures)

However, some of the students pointed out the limitations of communicating information about graduate career trajectories through routes such as graduate talks.

Some schools invite alumni to share their experience with current students, but they are all the very best, and their number is very limited; their experience is not typical of graduates in a tight job market. (Student, Department of Pharmaceutical Sciences, class of 2015)

### ***Effects on management***

In this section, we analyse the perceptions of administrative staff as to the effects of IQA on management, using their responses in both the questionnaire and the interviews.

#### *Survey questionnaire data (administrative staff)*

With regard to the contribution of IQA instruments to the improvement of the key administrative processes mentioned in the survey (see *Table 4.16*), all administrative staff gave a relatively high rating, with averages between three and four. Unit self-evaluation had the strongest effect of the five IOA instruments on 'improved strategic planning', 'more evidence-based decision-making', 'more service orientation', and 'effectiveness of administrative operations'. This confirms that unit self-evaluation is essential to the quality

assurance of the university's administration. Other management-related IQA instruments (unit external evaluation, certification, target- and service-level agreements) also have strong overall averages.

**Table 4.16 Effects of IQA Tools on management (administrative staff)**

	Unit self-evaluation	Unit external evaluation	Certification	Target-level agreements	Service-level agreements
Improved strategic planning	3.71	3.39	3.4	3.39	3.44
More evidence based decision-making	3.69	3.39	3.39	3.37	3.45
More service orientation	3.75	3.41	3.32	3.39	3.5
Effectiveness of administrative operations	3.7	3.37	3.37	3.39	3.52

Note: All figures are averages (see Table 4.12 for explanation).

*Interview and focus group discussion data with administrative leaders*

The heads of the five administrative units all believed that IQA had positive effects on the university's management, making it more purposeful, institutionalized, and orderly, and allowing the university to achieve its development goals. In their appreciation of IQA instruments with effects on management, they did, however, often refer to IQA instruments located in the domains of teaching/learning and employability. In decision-making regarding resource allocation, for example, they said that they used data from course evaluation and performance assessment, as well as graduate and employer feedback.

The heads of the administrative units made the following comments during interview:

IQA provides a strong stimulus to the university's efforts to achieve its central educational objectives. As the head of the Office of Human Resources, I use IQA information and data a lot. For example, in evaluating academic staff members for awards and promotion, we look at their teaching performance. Anyone who has been involved in a teaching irregularity is disqualified. In setting staffing requirements, the faculty-student ratio and the level of the platforms are considered important indicators. All this is intended to ensure the quality of education. (Director of the Office of Human Resources)

As the director of the centre, I call tell from course evaluations which teacher teaches a certain course better, which teachers are not fully committed to teaching, and how the teachers' course is structured. I then figure out what the administrative units should do to help resolve the problems. IQA also plays a role in resource allocation. For example, for the IQA project that my centre is working on, the university has assigned three people to support it. (Director of the Centre for Teaching and Learning Development)

The University's IQA work makes my management work a lot easier. It helps me accomplish the tasks set by the university and enables the university to achieve its goals. I base my decision-making on the results of course evaluation, but, prior to the evaluation, I usually have my own observations. (Dean of the School of Economics)



## 4.6 Conditioning factors

### **Internal factors**

#### *Survey questionnaire data (academic and administrative staff)*

Academic and administrative staff were asked for their perceptions of the importance and presence of certain factors at their university which are understood to support the effective functioning of IQA at a university. Both academic and administrative staff rated all eight suggested factors as very important. Leadership support is rated highest by both groups, followed closely by the other factors. There are no major differences in the way that academic and administrative staff view these factors.

In terms of the presence of these factors at the university, the values are slightly lower than those relating to perceptions of importance, but they are still generally high. Again, leadership support is perceived as being most present by both staff groups. The active involvement of all stakeholders in IQA processes is seen by both academic and administrative respondents as somewhat less present than the other factors, but still scores above average with values of 3.52 and 3.9, respectively.

**Table 4.17** Survey questionnaire data (academic and administrative staff)

	Academic staff		Administrative staff	
	Importance	Existence	Importance	Existence
Leadership support	4.42	4.02	4.52	4.28
Support by students	4.25	3.80	4.27	4.00
Visibility of measures deduced from IQA procedures	4.30	3.58	4.26	3.95
Support by teachers	4.25	3.72	4.34	3.93
Scientific evaluations on the IQA procedures	4.25	3.54	4.28	3.90
Active participation of all stakeholders groups in IQA procedures	4.20	3.52	4.26	3.90
Solid data information system	4.25	3.62	4.37	3.90
Transparent information on the IQA procedures	4.30	3.58	4.29	3.95

Note: All figures are averages (see Table 4.12 for explanation).

#### *Interview and focus group discussion*

- Leadership support for IQA and its degree of importance

Asked about the importance of university leadership support to IQA, the heads of the administrative units (the Office of Academic Affairs, the Office of Student Affairs, the Office of International Cooperation and Exchange, the Office of Human Resources, and the Office of Development and Planning) agreed that 'leadership support' had an important influence on the effects of IQA. For example, to support the functioning of the university's IQA system, the university's leaders had appointed three people to work on it full-time.

The five vice-deans in charge of academic administration (from the College of Humanities, the School of Management, the College of Foreign Languages and Cultures, the School of Civil Engineering, and the School of Physics, Mechanical, and Electrical Engineering) also agreed that 'leadership support' was very important for IQA. The head of the Centre for Teaching and Learning Development also highlighted the significance of student

participation. He mentioned that the president of the university valued students' role in the enhancement of academic quality. Their opinions are actively sought and they are encouraged to write to heads to administrative offices to express their opinions. These efforts increase students' involvement in IQA.

The following comments were made during the interviews:

The university leadership support for IQA is crucial. The core leaders should support and promote the formulation of policies, fund inputs, and support resource allocation, etc., for IQA. (Head of the Office of Human Resources)

Leadership support is very important. In our system and culture of 'top-down leadership', college leaders' recognition is the precondition for the action of departments. (Vice-Dean for Academic Affairs, School of Management)

Under the teaching reform led by Vice-president Wu Daguang, our college has implemented broadly classified enrolment, launched a humanities lecture series, and established a general education centre, which provides great impetus to the improvement of students' study methods and the promotion of their personal qualities. (Head of the Office of Academic Affairs)

- Support by teachers for IQA

In the interviews, the heads of departments, the leaders of colleges, and the head of the Centre for Teaching and Learning Development all emphasized the importance of 'support by teachers' in the implementation of IQA. During the interviews, teachers from the Department of European Languages, the School of Humanities, and the School of Architecture and Civil Engineering, as well as the heads of the Centre for Teaching and Learning Development and the Office of International Cooperation and Exchange, all stressed the importance of teachers' role in IQA, noting that teachers' conscientious efforts to enhance their teaching performance were an important condition for an effective IQA system.

Teachers' dedication to their teaching duties is the most important internal conditioning factor for IQA. To produce high-calibre talent, the university must give first priority to teaching and make sure teachers realize that their greatest works are not the books that they write but their students, and that their most important task is talent cultivation. It's also important to create an atmosphere wherein teaching is respected and teachers are committed to excellence in teaching. (Head of the Centre for Teaching and Learning Development)

- Support by students for IQA and its degree of importance

In the interviews, teachers and administrators agreed that support from students was an important factor conditioning the effectiveness of IQA. The director of the Department of Architecture said that student expectation and support was an important enabling factor for the successful implementation of IQA:

One of the important enabling factors for IQA at Xiamen University is the expectation and support of students. We are responsible for giving students a great academic environment to improve their capacity since they chose to go to Xiamen University. (Vice-Dean for Academic Affairs, School of Architecture and Civil Engineering)

- Solid information system for IQA and its importance

A solid information system for IQA emerged during the interviews as a crucial, yet problematic, condition for effective IQA system at XMU. Administrative leaders were particularly concerned about the university-wide information system, more so than their academic counterparts. The main problem with information management at XMU

is the lack of compatibility among different information sub-systems and consequent deficiencies in sharing information.

A vice-dean in charge of academic affairs from the School of Management stressed the importance of a 'solid information system' in the implementation of IQA. He also pointed out problems with the information system which had been uncovered during IQA implementation.

The management information system has an important impact on IQA. Our information system still needs to be improved. At present, an 'information island' exists at the university. The information systems of teaching, research, teaching, and research for undergraduates and postgraduates are separated from each other and a coordinated system has yet to be established. It is difficult to break the barriers between different departments, units, colleges, and years of study, because there are not only technical problems but also management philosophy problems. (Vice-dean in charge of academic affairs, School of Management)

The five administrative leaders said that their departmental information systems were supportive enough for IQA within their own departments. However, four pointed out problems within the information system of the university. One underscored the importance of creating a comprehensive and integrated information system. Three argued that establishing a university-wide IQA information system was the best way to integrate the information systems of different departments.

We should break the barriers between different departments and administrative units and promote information-sharing among different departments. Establishing a university-wide IQA database will make information-sharing a reality and improve our educational performance. (Director G)

The university-wide information system needs to effectively integrate key information on human resources, teaching affairs, and research, etc. (Director R)

The information system of the individual departments can support IQA in different units, but the problem is that platforms for information sharing are not compatible with one another. For example, since the course selection systems for undergraduates and for postgraduates are not integrated, students cannot select courses through the other platform. In the future, the university should be more open not only in philosophy and rules, but also in technology. The seemingly easy problem becomes the trickiest one. (Director GH)

- Feedback from internal quality assurance procedures and its importance

Interview participants were asked whether they received feedback from IQA processes. In the interviews with 12 heads of department, 11 said they had received feedback from these instruments. Five said that they had received course evaluation reports by email, while seven said they had received feedback from students through surveys and informal meetings. Three had received quality reports on graduate employment quality, while four had received feedback from employers directly. Two had received feedback from jobs market analyses and one from academic competition awards. The interviews indicate that the internal quality feedback received by heads of department is mainly through course feedback from students and course evaluation (by email). They also suggest that the transparency of information regarding quality assurance procedures at XMU is not high enough and that feedback mechanisms should be improved.

I have received that. Before the beginning of this semester, I received a printed course evaluation, a graduate employment quality report from our university, and direct feedback from employers. (Head of department, MBA)

I have received the students' feedback on meetings and course evaluation results by email. Graduate tracer studies are mostly got by email. (WL, head of department)

What I have received is mostly feedback from employers. Some employers said that our graduates are deficient in the conception of design engineering. So we invited engineering specialists from Fujian Provincial Institute of Architectural Design and Research, Xiamen Branch, to help us develop a graduation project and consolidate the conception of design engineering together with our teachers. (TM, head of department)

Twenty of the 28 student interviewees said that they had received feedback from IQA procedures. Four said they had never received any, while two said they seldom received feedback and one was unclear about it. Among those students who had received feedback from IQA procedures, four had received course feedback from other students to the effect that course progress and the level of difficulty had changed. Four said that they had seen changes based on feedback they had given in informal students meetings, and four mentioned that the course structure of their following grade was changed as a result of their feedback. Three said that they had received feedback from teacher supervision; and two said they had received graduate employment information through chatting in a class discussion group and group email. Two received feedback directly from course evaluation reports, and one from teaching assistants.

This indicates that students received only limited feedback and that this came mainly from course assessments and teacher supervision. The ways through which students received feedback were limited, with most students reading the feedback directly or receiving it via email. This suggests that it is necessary to increase the transparency of information on internal quality assurance procedures among students. Below are some of the students' responses concerning feedback from IQA instruments.

A junior from the College of Foreign Languages and Cultures said:

I have received that. Mostly, teachers would adjust teaching procedures after receiving course feedback. They asked us if we had been able to follow the course schedule or if any improvements were needed. All quizzes were followed by our teachers' analysis and explanation, and even one-to-one tutoring was conducted for those who had poor performance. The employment information for graduates was mainly published on the official websites of our college and the university and ... group bulletin boards. Our counsellors also informed us of quality reports, some international exchange projects, introductory sessions, etc.

A senior from the School of Life Science commented:

I haven't received ... any feedback in print yet. Actually, our feedback will be shown to those students of the following grade, thus we have no direct access to it. I haven't received the feedback on course evaluation held in each semester. I suggest that these feedbacks be sent to the corresponding students by group email so that we can have a general idea of it and it will also serve as a reference of course selection for lower-year students.

A junior from the College of the Environment and Ecology said:

I am not clear about that. Our course arrangements have been changing every year, and I am not sure whether that is a result of internal quality control. For example, the students of our grade had many specialized courses in the second semester of our junior year, which made us rush, but would not happen to the students of the following grade. Yet I am not sure if that change was a result of internal quality control measures, such as accepting our complaint and suggestion.

A junior from the International College commented:

I have received that, mostly from our college. For example, we reported that some teacher was not suitable for teaching some course after course evaluation, then

another teacher replaced him and he was assigned to teach another course the following year. I got this information through communicating with students of the lower grade. Another way to report problems and situations is informal meetings. For example, when we were selecting courses, we were not able to choose the school selective courses because their credit property was the same as that of college Chinese. We called our dean of faculty and the problem was solved the next day.

The interviews with heads of department and students both indicate that the feedback from internal quality assurance they received is small in quantity and limited in terms of the channels through which it is communicated. This suggests a low transparency of information on internal quality assurance.

### **External factors**

#### *Interview and focus group discussion data*

- External quality assurance and the development of the IQA system

Interviews were conducted with five heads of administration at the university. During the interviews, they agreed that the requirements of external quality assurance played a role in advancing IQA developments. In interviews with five deputy heads of faculty, two argued that the requirements of external quality assurance at department level promoted the development of IQA and provided a means of testing its progress.

External quality assurance, such as the assessments and appraisals by the Ministry of Education and professional certifications, improves and promotes the development of IQA, but only temporarily. To sustain the momentum of the development of IQA requires sustained internal development of the university. (JS, head of department)

In 2005, the Ministry of Education started the evaluation of undergraduate education and our university completed the first internal quality evaluation in that year. Since then, Xiamen University has been carrying out annual internal education evaluation. We have indeed benefited tremendously from the experience. (G, head of unit)

EQA serves to promote and monitor the development of IQA, reflecting the advance of higher education quality management. (GH, head of department)

The education evaluation started by the Ministry of Education in 2005 serves the purpose of promoting educational development by evaluation. Our university is attaching greater importance to educational quality, but EQA is only part of quality assurance. To ensure that teaching remains on track, to improve teaching quality and to develop original teaching features, all depend on the university's adoption of the right attitude toward IQA. (Student Affairs Office)

When asked their opinion of how accreditation, audit, and external evaluation have supported the development of IQA at the university, the heads of the Office of Human Resources and the Office of Development and Planning said that they had promoted the development of the university's IQA.

The head of the Centre for Teaching and Learning Development echoed this view, stressing that the internal motivation of the university is the key factor in the long run.

Two vice-deans of faculty in charge of academic affairs said that external accreditation, audit, and evaluation were factors in ensuring the continuous development of the university's IQA, recognising too the importance of internal motivation.

External accreditation, audit, and evaluation continuously promote the development of our university's IQA system. For example, the professional accreditation and undergraduate teaching level evaluation held by the Ministry of Education contribute to the university's efforts to build its IQA system. (Head of administrative unit)

They can support the development of our university IQA continuously. The present international accreditation is not for life and is subject to renewal every three or five years. For example, our EMBA centre started enrolment in 2002. At that time, the EMBA education steering committee of the state council organized an evaluation of EMBA programmes at various universities and Xiamen University earned straight As. Apart from the professional accreditation for EMBA and EQUIS, there are industry evaluations such as the one conducted by *Manager* magazine, which takes student satisfaction as a major criterion. And in this evaluation, Xiamen University has ranked first four consecutive times. These external evaluations propelled us to pay attention to student satisfaction and thus guarantee that they can gain knowledge and have platforms and resources for networking. We have a promotional slogan: 'To be the EMBA programme with highest level of student satisfaction.' (GL, dean of faculty)

They can support the development of university IQA. External evaluations, especially professional evaluations, are mostly open and strict. In the professional evaluations, our university may choose the most significant factors specific to it, such as South Fujian culture, the Taiwan Strait features, and its strong humanistic features. Besides, professional evaluations are mostly international and rigorous, and can serve as references for our IQA practice. In professional evaluations, the teaching plans, establishment of laboratories, and competence of engineering design are being assessed, during which our IQA practice will also be examined and improved. (JT, dean of faculty)

In the interviews, three administrative leaders, one dean of a research centre, and three vice-deans of faculty said that regulatory reporting requirements imposed by government supported the development of IQA. An administrative leader and a vice-dean elaborated on this, saying that regulatory reporting raised awareness of higher education quality assurance and encouraged the normalization and standardization of IQA work.

Yes, the requirements are supportive. Colleges and universities are required to release two reports, on undergraduate education and graduate employment quality. The annual compilation of these two reports help us to identify deep-rooted problems in teaching quality improvement. Our focus on annual teaching evaluation and the major priority given to teaching quality and data collection, coupled with course evaluation, teaching inspection, the teaching committee, student questionnaire surveys, leadership's auditing classes, teaching skills competitions, teacher training, surveys of employer satisfaction, follow-up surveys and other means, have produced a sound mechanism for internal quality assurance. The mechanism is complemented by regulations, such as Xiamen University's undergraduate teaching guidelines, its interim regulations on teaching violations, and its recruitment terms for senior teaching and research positions. Meanwhile, the release of the reports helps us build the teaching database and supports the existing mechanisms for improving teaching quality, thus facilitating the monitoring and improvement of teaching quality throughout the teaching process. (J, head of unit)

Education quality evaluation reports, whether required by the government or by us, are an important basis for the school to enact and adjust its strategic plans. (GH, head of department)

The requirements are supportive. The annual quality report we present to the government is our feedback on undergraduate teaching quality and graduate employment work. Every year we summarize our work, identify problems, and raise new questions to better prepare the work of next year. (JS, head of department)

Reporting requirements imposed by government support the institutionalization and normalization of higher education quality assurance and raise quality awareness among colleges and universities. (GL, dean of faculty)

Since the government requires that universities release an undergraduate teaching quality report annually, we carry out undergraduate teaching quality evaluation every year, and the evaluations are different each year. In 2014, we focused on the evaluation of graduate courses by means of auditing classes and spot checks on course archives and graduates' theses. Each department first examines and evaluates its own work and then other departments' work. The departments of humanities and social science evaluate one another's work. From the survey we found that graduates from the College of Foreign Languages and Cultures have the least courses, and we were able to identify and solve other problems. Most importantly, after the evaluation, we are more concerned with the teaching of graduates and clearer about our goal, that is, we do not teach only for the purpose of helping students to get better jobs. Employment should not be the beacon of teaching, and we should make sure that students have full access to the teaching resources when they are in school. (RW, dean of faculty)

- The role of university autonomy in developing IQA

Three administrative leaders and one research centre leader focused strongly on this issue. All felt that autonomy is important in the sense that it allows them to implement quality assurance in light of local specificities and existing issues. One vice-dean in charge of academic administration said: 'The autonomy for colleges is very important, giving us more flexibility and choices.' It is safe to conclude that autonomy plays a fairly important role in IQA at the university.

Autonomy allows a university to go forward in its own way. Ever since the assessment in 2005, XMU has been very much concerned with IQA. While assessment is conducted, more issues can be spotted which can afterwards be improved and addressed. (J, director)

Full autonomy brings about a diversified and personalized development. (GH, head of department)

Autonomy allows us to implement quality assurance in light of characteristic and existing problems. (JS, head of department)

The autonomy for colleges is very important; it gives us more flexibility and choice. (GL, dean of faculty)

Two of the five heads of administrative units interviewed felt that there was enough autonomy, while two thought there was not enough. One argued that there was a lack of autonomy to some degree. One research centre leader argued that there 'was some, but not enough'. Three vice-deans in charge of academic affairs said that there was autonomy at certain levels, while two argued there was not enough. It appears from this that while the university has been granted a degree of autonomy in developing IQA, more is needed.

### ***Overall appreciation of the effectiveness of IQA systems***

#### *Survey questionnaire data (academic and administrative staff)*

Academic and administrative staff were asked what they thought was the main paradigm according to which internal quality assurance activities were carried out at the university. 'Accountability towards stakeholders' and 'compliance with external standards' were considered by both staff groups to be the main paradigms for IQA at XMU (see Table 4.18). This suggests that IQA at the university is still perceived by staff as being driven largely by external factors, as much as by accountability to stakeholders.

Both academic and administrative staff were asked for their perceptions of the overall workload associated with IQA. The vast majority rated the workload in either the high

or moderate category. Nearly half of academic staff ranked IQA workload as high (47.9 per cent) while close to 50 per cent of administrative staff viewed it as very high or high. Very few academic or administrative staff view it as low. It is evident that staff at XMU associate IQA with considerable workload demands, with administrative staff rating IQA workload slightly higher than do academic staff (see *Table 4.19*).

**Table 4.18 Main paradigm of IQA instruments and processes**

	Compliance with external standards	Accountability towards stakeholders	Enhance organizational learning	Improvement	Control	Other
Academic staff	34.7%	46.4%	4.9%	5.4%	8.5%	1.5%
Administrative staff	35.4%	37.3%	6.8%	13.7%	4.6%	2.3%

**Table 4.19 Overall workload with IQA instruments and processes**

	Very high	High	Moderate	Low	None at all	I do not know
Academic staff	1.4%	47.9%	29.7%	1.9%	1.1%	4.9%
Administrative staff	12.4%	37.1%	36.6%	4.4%	0.9%	8.6%

Academic and administrative staff were asked about their appreciation of the overall benefits of IQA. Most academic respondents judged the overall benefits as either ‘high’ (28.5 per cent) or ‘moderate’ (43.9 per cent). Administrative respondents were also inclined to judge the overall benefits as either ‘high’ (41.1 per cent) or ‘moderate’ (38.4 per cent), as shown in *Table 4.20*. While both groups are quite positive about the overall benefits of IQA, administrative staff rate the overall benefits of IQA somewhat higher. This may be because administrative staff have more opportunities to receive IQA information and data than do academic staff. This perception correlates with administrative staff’s somewhat higher perception of workload associated with IQA.

**Table 4.20 Overall benefits with IQA instruments and processes**

	Very high	High	Moderate	Low	None at all	I do not know
Academic staff	6.2%	28.5%	43.9%	7.9%	3.1%	10.4%
Administrative staff	8.7%	41.1%	38.4%	1.9%	1.5%	8.4%

Academic and administrative staff were asked about their appreciation of IQA for improved decision-making. Most administrative respondents judged decision-making to be either ‘much’ (31.8 per cent) or ‘moderately’ (35.5 per cent) improved, as did the academic respondents (39.2 per cent and 37.6 per cent, respectively). *Table 4.21* indicates that administrative staff view IQA’s contribution to improved management decisions somewhat more favourably than do academic staff. This may be due to the fact that administrative staff are more involved in management decision-making than are academic staff.

**Table 4.21 IQA for improved management decisions**

	Very much	Much	Moderately	Little	Not at all	I do not know
Academic staff	7.3%	31.8%	35.5%	10.2%	3.1%	12.1%
Administrative staff	7.6%	39.2%	37.6%	5.3%	1.1%	9.1%



Academic and administrative staff were asked about their appreciation of the contribution of IQA to the overall improved effectiveness of the university. *Table 4.22* shows that academic and administrative staff have somewhat different perceptions, with administrative staff more likely to express a high opinion of the contribution of IQA to overall improved effectiveness.

**Table 4.22 Contribution of IQA to overall improved effectiveness**

	Very much	Much	Moderately	Little	Not at all	I do not know
Academic staff	8.8%	30.5%	35.1%	8.8%	3.8%	13.0%
Administrative staff	7.2%	42.2%	39.2%	2.7%	0.4%	8.4%

*Interview and focus group discussion data*

Most interviewees felt that the university’s IQA system greatly helped to enhance its overall productivity and the efficiency of its management decision-making. For example, the head of the Office of Academic Affairs said:

The university has witnessed increased satisfaction with teaching quality on the part of undergraduate students. In the four academic years from 2011 to 2015, there has been class evaluation each year, with the rating rising from 4.55 to 4.86. The average rating in class evaluations has risen from 4.59 to 4.87, and the average rating in teacher evaluations has gone up from 4.68 to 4.89. The percentage of graduates who are satisfied or very satisfied with their teachers has increased from 74.50 per cent to 83.89 per cent, and the percentage of graduates who are satisfied or very satisfied with the overall teaching performance has climbed from 78 per cent to 85.18 per cent. Moreover, the percentage of graduates who think that their competences have improved or improved greatly has gone up by 15.89 per cent.

However, the university’s IQA system has not produced particularly remarkable effects because of the less-than-scientific process in place and the less-than-perfect feedback and improvement mechanisms. The Vice-President for Academic Affairs, for example, said:

The most pressing issue with the university’s quality assurance is the lack of systematic, sustainable designs at the top level of the university. We’ve worked hard to transform the previous spontaneously developed, fragmented, experience-based quality assurance measures or methods into a professional, scientific quality control system. We’ve raised our quality assurance awareness and practices to the right level. To enhance the university’s educational and teaching quality, it’s essential to build a full set of rigorous methods, technical lines, and management procedures.

The Vice-Dean for Academic Affairs, at the School of Management, said:

As part of our jobs, we focus on areas where the university’s evaluation indicators lie. One of the most important tasks for the university in the current quality assessment is to reform the present teacher evaluation system to challenge teachers’ general tendency to emphasize research over teaching. In particular, it’s important to increase full and associate professors’ enthusiasm for teaching.

A student from the School of Medicine commented:

The two course evaluations in each semester cause some waste of time and paper. Moreover, students receive no feedback from the evaluations. Consequently, most students believe course evaluations are mere formalities and have no substantive effects. Therefore, they don’t take such evaluations very seriously.

# Conclusions

This case study demonstrates how, since the 1980s, Xiamen University has built a quality assurance system focused on monitoring the quality of teaching. From 2000 onwards, the university has built on its original IQA system to develop an efficient and effective new IQA system with four dimensions: self-inspection, self-diagnosis, self-feedback, and self-modification. The system uses a wide range of IQA instruments, including the routine monitoring and evaluation of course teaching and graduate tracer studies, as well as monitoring of data on the day-to-day state of education provision. Today, IQA at XMU is supported by clearly defined rules and regulations, an organizational structure with clearly defined tasks, duties and responsibilities, competent personnel, and a vast range of monitoring procedures and tools. As such, the IQA system plays a vital role in ensuring the quality of education in the university.

## 5.1 Main innovations in the IQA system

The university has continuously reformed its IQA system. One of the main innovations to have been introduced over the years is the transformation in its approach, from being externally driven to becoming development-oriented. In contrast to the externally driven nature of most education quality assurance, the university's focus is more on organizational development. The university performs annual self-evaluation of undergraduate programmes and has built efficient and effective IQA mechanisms focused on self-discipline, self-inspection, self-improvement, and self-enhancement.

Another innovation is the move to a more rigorous, evidence-based management style. The university has created several databases on the status of teaching activities and built mechanisms for the regular reporting of teaching quality. Quality monitoring has been transformed to ensure management decision-making is based on reliable evidence rather than on a manager's own experience.

The IQA system focuses on transformation not at system level but at curricular level. The university has established a Centre for Teaching and Learning Development, which delivers annual teacher training programmes. Annual evaluation of every aspect of students' education also supports the improvement of teaching at XMU. The focal point of IQA has thus shifted from the reform of macro mechanisms to the enhancement of teaching outcomes.

Finally, the IQA system has shifted from a focus on teaching to a focus on learning. As part of IQA development, each semester the university asks students to evaluate the teaching of their courses. It also promotes the move from a single teaching objective to differentiated, personalized teaching, and guides teachers in shifting their focus from teaching to student learning.

In short, Xiamen University has built an efficient and effective IQA system which enables the continuous improvement of teaching quality. While the system is exemplary within the context of China, the study also identified some areas for improvement.

### *Effects of IQA in teaching/learning*

The surveys show that the IQA instruments that support teaching and learning, such as course evaluation by student survey, programme evaluation by student survey, teaching guidance and inspection, student workload assessment, and student competences assessment, have helped teachers enhance their teaching performance and optimize their course structure and enabled students to improve their overall competences and

achieve their potential. Over the last three years, a growing number of graduates have pursued further education, master's degrees, or overseas education.

However, the surveys also indicate that the university's IQA system still faces problems, such as the lack of integration of databases used for IQA, an overemphasis on research output over teaching in evaluation indicators, less-than-rigorous quality assurance procedures, and inadequate feedback on quality assurance to key stakeholders such as academics and students. It is crucial that XMU strengthens the institutionalization of the IQA system, increases the efficiency of its operations, enhances recognition of the importance of quality among stakeholders, builds a quality culture, balances the importance of teaching and research in the performance evaluation of academic staff, and improves teaching feedback mechanisms.

#### *Effects of IQA on employability of graduates*

Since 2011, XMU has regularly conducted graduate tracer studies, jobs market analyses, and employer satisfaction surveys, and involved employers in programme revision, significantly enhancing graduate employability. The employment rate of XMU graduates has steadily grown, the average salary of graduates has risen, and employer satisfaction has surged.

However, the surveys also demonstrate that academic staff are not much involved in IQA procedures relating to graduate employability, such as graduate tracer studies, jobs market analyses, employer engagement in study programme revision, and employer satisfaction surveys. Nor do they receive much feedback or use the data from these IQA procedures. During the interviews, it was found that the Office of Student Affairs and the Employment Guidance Centre conduct graduate tracer studies, jobs market analyses and employer satisfaction surveys on an annual basis to collect information and data on employment. Such information and data are not, however, readily available to schools and colleges and, in most cases, are circulated only to the higher authorities for review. To address this issue, the university needs to dismantle the barriers between different offices and end the separation of teaching and student employment promotion. It is recommended that the university sets up a dedicated quality assurance office, with a professional staff to coordinate communication and collaboration between different administrative units, offices, and departments.

#### *Effects of IQA on management*

The research shows that, in the management domain, XMU operates an efficient quality assurance system which comprises unit self-evaluation, unit quality certification, university and college target management schemes, and departmental service-level agreements (Zhu Huiqiong, 2008). Our survey of administrative staff shows that they are involved in these instruments and that they receive feedback and use the data generated by them. In general, administrative staff demonstrate a positive attitude to IQA. They believe that the quality assurance measures for the university's administrative operations have produced positive results.

However, we also uncovered a number of problems in our surveys and interviews, such as inadequate awareness of the importance of educational targets among some administrators, insufficient awareness of the importance of quality assurance in some offices, an emphasis on pragmatism over procedures in administration, and a lack of external supervision. Consequently, it is crucial that the university sensitizes administrative staff to enhance their commitment to serving educational targets, improves administrative management mechanisms, and creates a complete set of efficient and effective operating mechanisms. The university should also increase its supervision and assessment of administrative offices, encourage these offices to take part in quality certification by

international bodies, and enhance their work efficiency (Zhou and Liu, 2011). It might also consider employing modern information technology to enrich the means of administration, take advantage of online resources, and use the web to manage and share information resources, thereby ensuring full communication among administrators and reducing administrative costs.

#### *Internal conditioning factors*

In the surveys, academic and administrative staff were asked to assess the importance of several internal factors to the effectiveness of IQA instruments and procedures and to indicate to what point these factors were present in the university.

They reported, first, that leadership support directly conditions the effects of IQA. The surveys of academic and administrative staff found that leadership support was the most valued and most present factor supporting the effective functioning of IQA at XMU.

Second, support from teachers was seen as playing an important role in IQA implementation. The survey of academic staff showed that support from teachers was considered important, though fewer staff thought it was present. The university should consider measures to enhance a supportive attitude to IQA among teachers, including the provision of funds and resources.

Third, the surveys suggested that support from students had a significant influence on IQA implementation, second only to leadership support. The university should, in future, acknowledge the importance of support from students and give it a higher priority, thus promoting students' involvement in internal quality assurance.

Fourth, IQA instruments, procedures, and data should be made more accessible to teachers and students. The academic staff survey showed that teachers did not receive enough feedback and did not use the data from IQA instruments or procedures very often. Some did not think the data very useful. IQA instruments, procedures, and data, in fact, had less influence on implementation than teachers' expectations. It is therefore necessary to make IQA instruments, procedures, and data more accessible to teachers.

Fifth, more financial incentives should be provided for administrative staff. The survey of administrative staff found that financial incentives for staff were seen as having a great influence on the effects of IQA, ranking third overall. In reality, however, there are far fewer financial incentives than might be expected. The offer of more financial incentives to administrative staff would increase support for IQA.

Sixth, the information management system should be improved. The analysis of the interviews with teachers and the surveys of academic and administrative staff showed that they believe a 'reliable data system' to be crucial, and that the reality falls short of their expectations. To provide reliable data for internal quality assurance and promote the support of data in IQA it is necessary to improve the information management system.

#### *External conditioning factors*

The study found that academic and administrative leaders view external quality assurance as having played a positive role in 'stimulating', 'promoting', 'macro-managing', 'supervising', and 'reviewing' the IQA development process. In addition, by requiring institutions to submit quality reports, the government has promoted IQA development within institutions and made IQA work routine and standardized.

However, sustainable and continuous IQA development at the university depends not only on external factors but on the university's intrinsic motivation for development. Academic and administrative leaders felt that operational autonomy was crucial to IQA. It allowed XMU to implement IQA according to its specific circumstances to address existing

weaknesses. With greater operational autonomy at decentralized levels of the university, institutions would enjoy greater flexibility in IQA and be able to explore more options.

## 5.2 Good principles for IQA and lessons learned

The qualitative and quantitative analysis of our research highlighted the following key principles and lessons learned for IQA at Xiamen University.

- **IQA should be supported strongly by senior and college-level leaders** – The support of university leadership is the most critical factor conditioning the success of the university’s IQA system. This is the case at XMU, where the backing of senior leaders maintains the university’s IQA philosophy, supports the concentration of IQA resources, and, in the long run, will help foster a strong IQA culture within the university.
- **IQA must be accountable to multiple stakeholders** – XMU has created an IQA model that holds the university accountable to stakeholders such as students, students’ parents, teachers, alumni, businesses, and markets, and systematically collects information from all of them. This model ensures that the IQA system becomes institutionalized and cannot be changed easily, even if leadership changes.
- **Students should be seen as important contributors to IQA** – XMU acknowledges the role of students in supervising IQA as a stakeholder group. The questionnaire surveys found that both academic and administrative staff believe that students have the second-greatest influence on the university’s IQA work, behind university leadership. A student-centred academic and administrative management philosophy is long established at XMU and represents the essence of the university’s IQA culture.
- **Alumni and peers should be involved in IQA to support efforts to enhance graduate employment** – IQA at XMU is widely geared to the enhancement of the employability of graduates. To provide maximal information to students via its career counselling services and to increase the relevance of the curriculum, XMU carries out graduate tracer studies, employer satisfaction surveys, and jobs market analyses, and involves employers in study programme revision. This allows the university to fine-tune curricular structures and course plans to reflect market needs, thereby enhancing graduate employability.
- **The IQA system for teaching and learning must encompass the full life cycle of students** – Through 10 years of exploration and improvement, XMU has created a dynamic and interactive IQA system, covering the entire process from a student’s enrolment to his or her graduation, longitudinally reflecting the ‘full life cycle’ of IQA. Through analysis of student education, IQA at XMU provides effective evaluation, monitoring, feedback, and improvement mechanisms, horizontally reflecting the ‘total educational processes at XMU’.
- **IQA should also be linked with opportunities for staff development** – Student evaluation of courses is the most important IQA instrument in XMU for the improvement of teaching performance. The university pays particular attention to the results of the evaluation of courses conducted by teachers with less than five years of teaching experience. Based on the evaluation results, the Office of Academic Affairs, the relevant school, and the Centre for Teaching and Learning Development might jointly organize ‘study plan groups’ to improve young teachers’ performance. They also arrange for top-performing teachers to provide ‘mentoring’ for young teachers. The Centre for Teaching and Learning Development creates and maintains ‘growth files’ for young teachers to keep track of their improving performance and accumulation of experience.
- **International accreditation can be used to develop the local IQA system** – The MBA and EMBA programmes at the School of Management have been accredited by AACSB. In 2014, the School of Architecture and Civil Engineering passed its first-ever

programme evaluation by the Ministry of Housing and Urban-Rural Development. During the interviews, the school's vice-dean for academic affairs and many of its teachers commented that each evaluation constitutes a comprehensive check on the school's academic programmes and contributes to the school's efforts to improve teaching and learning conditions and meet the highest international standards. Obtaining international accreditation for academic programmes further boosts students' employability and their competitiveness in the jobs market.

- **Self-evaluation can be used as an important element in building a quality culture**
  - Each year, the Graduate School, the Undergraduate School, and the Office of Academic Affairs require all departments to conduct self-evaluations and establish teams comprised of experts and teachers from different fields. During the 2014 self-evaluation, for example, staff from humanities and social science departments evaluated one another's academic programmes. The surveys found that programme self-evaluation is the IQA instrument from which teachers receive most feedback and which they find most useful. This testifies to the role of programme self-evaluation in monitoring and enhancing the quality of teaching and learning in the university.

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## The case study

The rapid growth and diversification of higher education in China has led to changes in regulations and governance structures. As part of this reform, the responsibility for assuring the quality of higher education shifted from central to regional government, and then to institutions. Xiamen University (XMU) – one of China’s most prominent research universities – has developed an efficient and effective internal quality assurance (IQA) system for teaching and learning over the past 20 years. It aims to strengthen graduate employability by facilitating the creation, dissemination, preservation, and application of knowledge.

Conducted within the framework of an international research project implemented by the UNESCO International Institute for Educational Planning (IIEP), this case study focuses on how the IQA system at XMU contributes to teaching and learning, and how IQA affects the overall quality of education and the employability of graduates at the university.

## The authors

**Wu Daguang** has been a Vice President of XMU since 2007. He received his doctorate degree in education from the university in 1990. Currently, he is the Chair Professor of Higher Education at XMU’s Institute of Education. His main research interests are higher education theory, policy, and administration, and private higher education in China.

**Xie Zuoxu** is a Professor at the Institute of Education at XMU, where he received his doctoral degree in education in 2000. His main research interests are higher education massification in China, equity in educational chance among the different social strata, and educational quality.

**Wu Fan** is an Assistant Professor at the Center for Teaching and Learning Development at XMU. She received her doctorate in the field of higher education. Her research interests are higher education QA, students’ learning experience and outcomes assessment, faculty development, teaching and learning in higher education, and comparative and international aspects of higher education.

**Qi Yanjie** is a PhD candidate from the Institute of Education at XMU. Her main research area is educational economy and management.



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