

## AN INNOVATIVE CYCLE OF MANAGEMENT FOR HIGHER EDUCATION IN TAIWAN

Chih-Yang CHAO<sup>1</sup>  
Yi-Ting WANG<sup>2</sup>  
Jocelyn CHANG<sup>3</sup>

---

### ABSTRACT

*In the 21st Century, human beings are facing a variety of difficulties related to global warming, aging population, limited resources, rich-poor gap as well as low-birth rate. These problems have posed great challenges to the society. There is no doubt that higher education is one of victims under the change of the general environment. Indeed, Taiwan has faced serious problems caused by continuously declining fertility rates for years, which has threatened the sustainable development of universities. Apparently, the only way to get rid of this dilemma is to make change. Universities must find solutions to difficulties in student recruitment and develop ways to reinforce their competitiveness. Innovative management thus becomes the best tool to deal with these new challenges. In this study, we seek to share our experience reshaping and reviving a private university of technology in Taiwan, using the concept of total quality management (TQM), which has facilitated the birth of new possibilities in higher education.*

**KEYWORDS:** *higher education, low-birth rate, total quality management.*

**JEL CLASSIFICATION:** *I23.*

---

### 1. INTRODUCTION

In the twenty-first century, the external environment is continuously and rapidly changing. The development of new technologies has reshaped people's lives in different ways. On one hand, it has brought convenience and boosted industries of various types. For example, social networking has been used as a main channel in marketing and advertising and has also been regarded as one of the most effective communication tools. The advance of technologies, on the other hand, has reformed the economic structure leading to a variety of challenges like global economic recession.

Taiwan, as a member of the global village, cannot remain immune to the changing environment. Accordingly, the competitiveness of Taiwan is subject to changes driven by a number of external forces. To sustain and enhance its competitiveness, Taiwan must face new challenges contingent on the changes. It is generally agreed that a country's competitiveness is closely associated with its education, which plays a crucial role in cultivating talents and stimulating the development of the society. In other words, education, to certain extent, determines the future of a country.

One of the biggest challenges Taiwan faces, nevertheless, comes from higher education. The current economic structure of Taiwan has caused problems, such as rich-poor gaps, low fertility, and unequal distribution of public resources, which then have a significant impact on the components of the academy, including its administrative system, students, faculty, and curriculum. At the same

---

<sup>1</sup> Ling Tung University, Taiwan, cychao@teemail.ltu.edu.tw

<sup>2</sup> Ling Tung University, Taiwan, yw7@umail.iu.edu

<sup>3</sup> Ling Tung University, Taiwan, jocelyn.chang@teemail.ltu.edu.tw

time, these problems force higher education institutions to look out on the issue of quality management and to opt for a possible solution built on total quality management (TQM), which is “the integration of full functions and processes within an organization in order to achieve continuous improvement of the quality of goods and services” (Omachonu & Ross, 2004, p. 3). In fact, the practice of TQM in higher education in Taiwan has been quite successful. The introduction of the concept of quality management has reinvigorated not only the physical environment of universities but also the whole administrative system and has furthered the potentials of universities (Chang, 2014; Huang, 2014).

This paper presents a case study on an innovative approach of management in higher education. We intend to share our experience implementing TQM at Ling Tung University, a private university of technology in Taiwan. In the past years, the involvement of the idea of TQM has opened a new window for the university and has reinforced its competitiveness against other competitors in higher education.

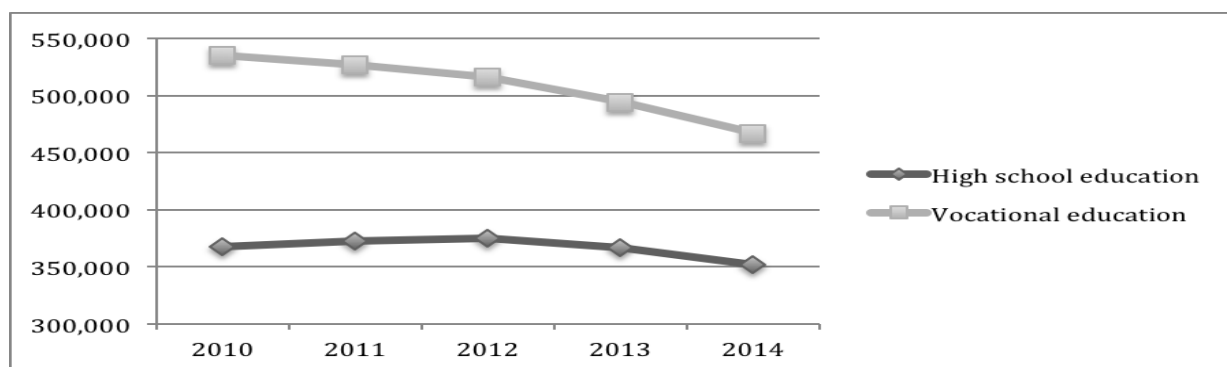
## 2. CHALLENGES AND DIFFICULTIES

Higher education institutions in Taiwan are either public or private and are divided into universities and universities of technology. The focus of universities centers on research and development of knowledge of various subjects, and these universities target the population of general high school students. On the contrary, the goal of universities of technology is to help students engage in career-oriented training and develop problem-solving skills, and these universities aim at students from vocational education backgrounds. According to the statistical report of the Ministry of Education, in 2012, there were a total of 162 universities and universities of technology in Taiwan. By 2014, there were still 158, including 88 universities of technology and 70 universities. Nevertheless, the number of students in secondary education continues to decline, as shown in Table 1 and Figure 1. These figures suggest that low enrollment has become a common issue every higher education institution has to handle. Ling Tung University is no exception.

**Table 1. Number of students in secondary education**

	2010	2011	2012	2013	2014
<b>High school education</b>	367,477	372,237	374,680	366,691	351,835
<b>Vocational education</b>	535,077	526,951	516,444	494,267	467,034
<b>Total</b>	902,554	899,188	891,124	860,958	818,869

*Source:* adapted from the statistical report of the Ministry of Education (Taiwan)



**Figure 1. Number of students in secondary education**

*Source:* adapted from the statistical report of the Ministry of Education (Taiwan)

Ling Tung Junior College of Accounting located in central Taiwan was established in 1963, providing five-year programs in business-related subjects for junior high school graduates. In 2005, it was successfully promoted to a university of technology offering four-year undergraduate programs. Currently, Ling Tung University has four schools, including school of design, school of finance and economics, school of information science, and school of management, which are comprised of 16 undergraduate programs and 11 graduate programs. In addition, Ling Tung University also provides night programs and weekend programs for students who are interested in pursuing lifelong learning. To facilitate international academic exchange and explore new channels of student recruitment, Ling Tung University has strived to establish sister-relationships with colleges and universities in America, Korea, Japan, Chile, Vietnam, Australia, Mainland China and so on.

Thanks to the efforts of the faculty and staff, in the past three years, the enrollment of students at Ling Tung University has always exceeded the threshold of 10,000. The overall enrollment rate is quite steady. At present, there are 10,472 students studying at Ling Tung University. It is currently ranked fifth largest university of technology in central Taiwan in terms of enrollment. Ling Tung University's success in staying competitive benefits from the practice of TQM, which is a philosophy concerned with continuous improvement and responsiveness to customer's needs and expectations (Coate, 1994; Lewis & Smith 1994, Sallis, 1996, 2005). The administrators of Ling Tung University have viewed quality as a competitive advantage and believe that quality is critical to the sustainable development of the university's competitiveness (Powell, 1995).

To define the forces motivating quality improvement in higher education, Sallis (2005) proposed four imperatives under the framework of TQM: the moral imperative, the professional imperative, the competitive imperative, and the accountability imperative. According to the moral imperative, students deserve the best quality of education. The professional imperative is related to the commitment to needs of students. The competitive imperative urges educators to sustain competitiveness by improving their teaching and refining their curriculum. The accountability imperative stresses the requirement of objective measurement on performance.

The globally increasing awareness of the importance of quality management in sustainable development has facilitated the implementation of the PDCA cycle (Deming, 1986, 1993) in management of higher education. It goes without saying that planning should be considered at the first stage of quality management. Planning is dependent on a comprehensive analysis aiming at the institution's strengths, weaknesses, opportunities, and threats.

The results of the SWOT analysis on Ling Tung University suggest that the biggest challenges it faces are limited resources and potential lower enrollment rates. First, the uneven distribution of resources has been a widely discussed issue for decades. In general, at public universities, the funding of the government accounts for half of the revenue, while the funding for private universities is only about 10% of the revenue. The financial difficulties of private universities of technology are undoubtedly much more serious. The lack of financial support from the government has resulted in the increase of tuition fees, which makes it more difficult for private universities of technology to recruit students.

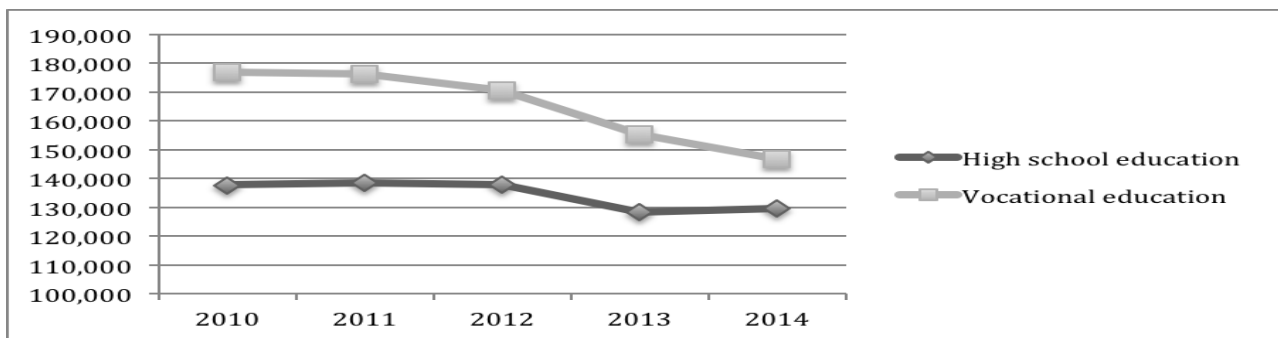
Second, like other Asian countries, Taiwan has been experiencing long-term downtrends in fertility. The statistical report from the Ministry of Interior's Department of Household Registration (2014) demonstrates that the crude birth rate was 49.97 per 1000 forty years ago and was 8.99 per 1000 in 2014. This phenomenon has raised concerns about the impact of low birth rates on education. Table 2 and Figure 2 clearly point out the dramatically declining number of first-year students in secondary education posing a serious challenge to many colleges and universities in Taiwan. That is to say, certain higher education institutions, especially universities of technology, are/will be threaten by the "closer mechanism" first implemented by the Ministry of Education in 2005 according to which universities will not be granted the right to recruit students if their overall evaluations are under the expectations of the government. Although Ling Tung University has built up a decent reputation over the past 51 years, it still cannot get rid of the shadow caused by the shortage of prospective students.

Since low fertility is a fact, which cannot be changed within the short term, the only way out of such a difficult situation is gear up for the challenge.

**Table 2. Number of first-year students in secondary education**

	2010	2011	2012	2013	2014
High school education	137,721	138,437	137,914	128,369	129,504
Vocational education	176,928	176,271	170,716	155,239	146,702
Total	314,649	314,708	308,630	283,608	276,206

Source: adapted from the statistical report of the Ministry of Education (Taiwan)



**Figure 2. Number of first-year students in secondary education**

Source: adapted from the statistical report of the Ministry of Education (Taiwan)

The administrators of Ling Tung University have foreseen the predicament and seen the urge of making change. Apparently, the future of the university lies in stable enrollment. And the success of student recruitment is determined by continuous improvement that revolves around strengthening the effectiveness and efficiency of the university and helps the university reach its objective.

### 3. INNOVATIVE MANAGEMENT: THE RICE CYCLE

It has been commonly assumed that continuous improvement, a crucial element in the philosophy of TQM, is the key to the survival of the university. Over the past decade, continuous improvement has become a popular trend and has been implemented worldwide. The goal of continuous improvement is not to maintain the current status but to improve the overall performance of organizations. The challenges caused by low birth rates have forced educators of higher education in Taiwan to confront issues related to the survival of universities.

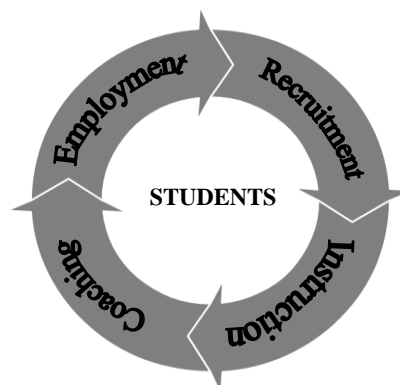
Based on the concept of TQM, we propose an innovative approach toward quality management, namely the RICE Cycle, which highlights the importance of continuous improvement. As we all know, rice is, without question, one of the most important grains on this planet. Indeed, it is the main crop consumed by a large population of Asians. Unlike other crops, rice, however, needs special care to grow. Farmers must pay full attention to the growth of rice seedlings if they want to have good harvests. As a result, quality management becomes an extremely important issue affecting the amount of profit farmers can earn.

In the same vein, universities are like farmers and students are like rice seedlings. Services provided by universities, similar to what businesses offer, must be customer-centered, specifically student-centered. As shown in Figure 3, the RICE Cycle composed of Recruitment, Instruction, Coaching, and Employment are derived from needs of students. It is believed that the quality of these four

aspects will affect the future of universities because the RICE Cycle itself facilitates continuous improvement, which leads to sustainable development.

The application of the RICE Cycle is subject to several key factors. First, every component of the RICE Cycle must be student-centered because students are exact receivers of educational services. Acquiring student satisfaction is therefore vital to every service provider. Second, all decision-making and problem-solving processes in the RICE Cycle must be based on scientific data analysis, which is viewed as the benchmark of improvements and quality control.

Furthermore, the implementation of the RICE Cycle must involve total participation. Both staff and faculty have their own strengths and talents. Their devotion and attitude are expected to have an immediate influence on levels of student satisfaction. Thus having all the members of the university engaged in problem-solving and strategy-making processes empowers them and gives them a sense of responsibility and authority, which eventually fosters the operation of the university. These factors are the crux of the RICE Cycle ensuring the success of continuous improvement.



**Figure 3. The RICE Cycle**

*Source: authors*

### 3.1. Recruitment

Students are the fundamentals of higher education institutions. Therefore, continuous improvement of these institutions must start from student recruitment. Due to the decline of student populations, recruitment has become a very tough task. To deal with this difficulty, we first have to recognize the importance of participation, which is teamwork in the TQM sense. As mentioned above, sustainability relies on student recruitment. Nevertheless, the participation of faculty and staff determines the outcome of recruitment. Participation empowers all the members involved in the recruitment task and gives them a sense of responsibility (Evans & Lindsay, 2008).

Take Ling Tung University for example. Since Ling Tung University is a private university of technology, its sources of students are quite limited. To survive in such a competitive environment, it needs to seize every promoting and advertising opportunity. In recent years, visiting high school classrooms has become a crucial approach to student recruitment. On-site recruitment is in fact regarded as the most important event of Ling Tung University. Its student recruitment is conducted by an elite team consisting of university staff and teachers from different departments with enthusiasm and great communication skills. These elite recruiters are trained in recruitment workshops before they start their missions. During the recruitment season, these people work together in a virtual organization (Foster, Kesselman, & Tuecke, 2001). Social networking is employed to strengthen teamwork and facilitate exchange of information. Every member of the team is encouraged to join an online group set up on the platform of LINE, a very popular communication application, which can be easily installed in smartphones. The use of such an instant messenger makes communication more effective and buttresses team cohesion.

In addition to participation, the success of recruitment is associated with the application of scientific facts in every decision-making stage. Statistical data helps the university identify problems and its

target sources of students. The data prevents the university from wasting time and resources on wrong populations and optimizes student recruitment and admissions.

At Ling Tung University, statistical analyses are used as predictors to shape recruitment strategies. Thus the Student Recruitment Office of the university is obligated to produce a profile of target sources of students, which are based on the number of registered students of the previous year. Table 3 illustrates the top 20 high schools from which our university recruited a large number of students in 2014. To have a clear picture, we further analyzed these results by school and department. Based on the data of Table 3, Ling Tung University has arranged 368 successful recruitment visits in the spring semester of 2015. Benefits of this table include excellent teamwork across departments, successful recruitment planning, and better use of limited resources.

**Table 3. Number of registered students by school and department (2014)**

Rank	School	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Total
1	Ling Tung	11	9	3		3	10	26			3	13	13	2	9	1	17	18	138
2	Chiao Tai	12	4	2	11	1	5	8	12	9		5	10		9	8	6	5	107
3	Ming Der	6	2	2	15	4	2	8	5	9	3	1	5	2	1	8	3	13	89
4	Shin Min	4	2	6		1	5	17	1	6	1	7	6		4	5	12	12	89
5	Ta Min	8	4	3		1	5	3	7	16	2	3	7	2	3	13	3	6	86
6	Min Dao	5	5			2	9	8	1	17		7	4	1	4	6	2	2	73
7	I Ning	7	1	1	1	1	5	6			2	6	10	7	8	1	7	5	68
8	Bei Dou	4	13	2	2	1	6	11	1	4	1		5	2	1	5		3	61
9	Chil Yung	8		4	4	1	6	5	1		2	4	1	5	1	1	5	7	55
10	Guang Hua								14	2		11	7	1	8	8			51
11	Miao Li	7	4			3	5	5			5		1	1	1		1	8	42
12	Zen Del	2	3	1		1	4	7				6		1	4		3	8	40
13	Nantou	9	2	2		1	4	8			1	1		2	2		1	3	36
14	Ming Tai	4	1	1	4	2	2	9		4					2		2	3	34
15	Youth	2	2	1			2	3	4	3		2	2	1	3	1	1	5	32
16	Chien Tai	2	3	4		3	4	2			2	3	1		2		1		27
17	Chi Nan	8	2	1			5	4			3				1		2	1	27
18	Tuku	2	1	1		1	1	2		2	1	2	1	1		3	1	6	25
19	Caotun	2	5			1	3	5	2		1				1	1	1	2	24
20	Yu Da	2			2			1	2	8	2					3	2		22

Note. A-Department of Business Administration, B-Department of Marketing and Logistics Management, C- Department of Finance and Risk Management, D- Department of Fashion Design, E- Department of Public Finance, F- Department of Finance, G- Department of International Business, H- Department of Creative Product Design, I- Department of Visual Communication Design, J- Department of Accounting and Information Technology, K- Department of Information Technology, L- Department of Information Management, M- Digital Living Design Program, N- Department of Information Networking and System Administration, O- Department of Department of Digital Content Design, P- Department of Applied Foreign Languages, Q- Department of Tourism and Leisure Management

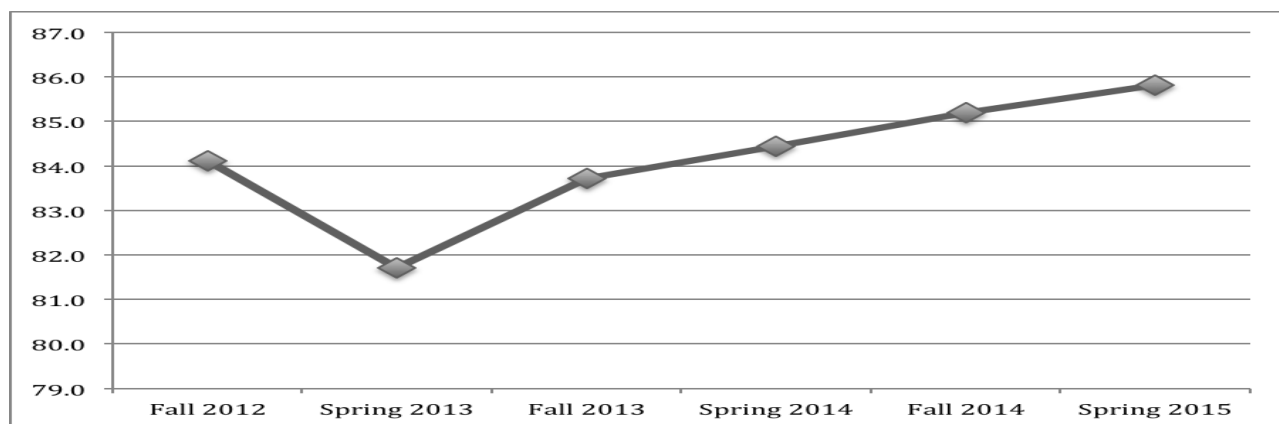
**3.2. Instruction**

Once those recruits become customers of higher education services, the institution has the responsibility to provide them with high-quality teaching. Nevertheless, how to control and monitor teaching quality is another issue the university has to work out. After all, instruction is the main

product universities offer. Although teacher evaluation systems have served as the essential tool to control quality, the implementation of teacher evaluations has been quite controversial. A body of research has called the validity of teacher evaluation systems into question. It has been argued that teacher evaluation systems may not have accurately measured teacher’s teaching quality and may have failed to help teachers refine their instruction (Toch & Rothman, 2008; Weisberg, Sexton, Mulhern, & Keeling, 2009).

To avoid subjective interpretations of teacher evaluations, Ling Tung University has developed an evaluation system, which aims at improving teaching quality. This evaluation system is two-fold. First, all the full-time teachers have to undergo an evaluation from the school they belong to every two years. The results of the evaluation may have an influence on the teacher’s promotion and employment. The criteria of evaluation involve three basic categories: teaching, research, and services. The proportional weight of each category is varying depending on the school regulations. For instance, the total evaluation score of the School of Administration is 100 points. The minimum points for these categories are 40, 20, and 20 separately. If teachers fail the evaluation three times in a row, they might face the termination of contract.

In addition to the teacher evaluation administered by each school, the performance of teachers at Ling Tung University is assessed in the end of each semester by students who take their courses. If teachers receive an average score below 70, they will have to consult with a teaching advisor from the Teaching and Learning Development Center, whose job is to help teachers locate teaching problems and enhance the quality of their instruction. The average teacher evaluation score of the past three years by students is 84.3/100. As seen in Figure 4, the evaluation score has been rising steadily since the spring semester of 2013. Apparently, the outcome of the implementation of such an evaluation at Ling Tung University has been encouraging, pointing to better teaching quality.



**Figure 4. Average teacher evaluation score by students**

*Source:* Data provided by Office of Academic Affairs of Ling Tung University

### 3.3. Coaching

As discussed above, student-oriented higher education has become a trend. Universities must take students’ needs into consideration while making any decision. Besides teaching, coaching is also a key variable in quality management. Coaching helps teachers establish a good rapport with students and gives them an opportunity to make students become more attached to their college lives. Furthermore, through coaching, students can get guidance and supports from their teachers with which they can achieve certain specific goals not only in the academy but also in career development.

Ling Tung University’s mentor program is believed to be one of its strengths in higher education. Every freshman class at Ling Tung University is assigned a full-time teacher serving as a mentor in the very beginning of their college life. The mentor teacher will accompany and guide the class for

four years. One of the mentor teacher's duties is to host a class meeting on a regular basis so that he or she can be aware of students' problems and take immediate action. The minute of every class meeting has to be submitted to the Office of Student Affairs for review. The staff of the office examines weekly minutes to make sure that everything is on the right track.

In the end of each semester, students are asked to fill out a survey on teachers' class management. The results of class management surveys will be reported to department chairs. Based on the scores and feedback from students, chairs work as facilitators to help teachers fine-tune their class management and coaching skills. To tell the truth, Ling Tung University has known for its meticulous care for its students. This long-standing mentor program has persuaded a lot of parents to have their children choose Ling Tung University.

### **3.4. Employment**

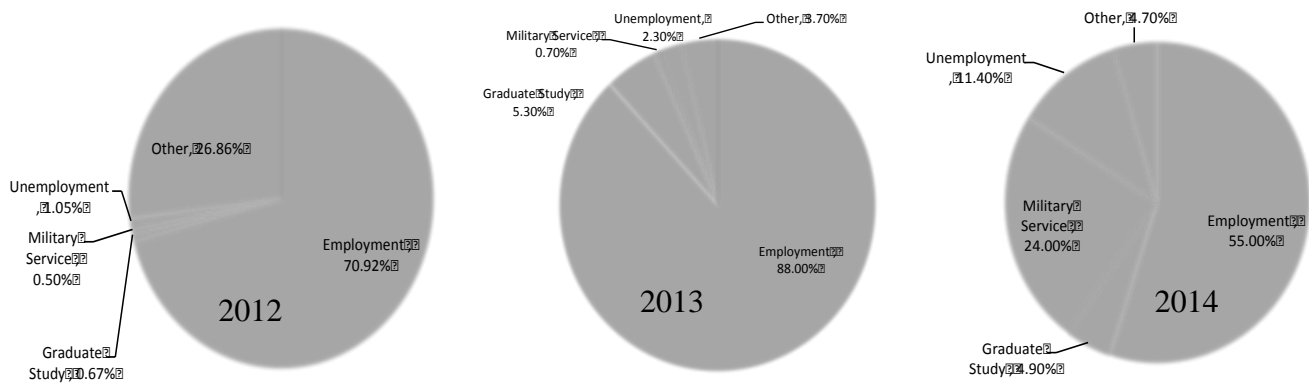
The ultimate goal of a university of technology is to help students build up skills in communication, teamwork, and problem-solving processes, which are essential qualifications highly valued by both national and international industries. Since employment rates of college graduates have been viewed as one of the crucial indicators of a university's key performance, how to equip students with workplace-relevant skills to increase their employability becomes an extremely urgent task.

In the past years, Ling Tung University has sought to help students start planning their career from the first day of their study. To enhance students' employability, Ling Tung University has established a Career Development Center and a Continuing Education Office for its students. The Career Development Center holds regular forums on employment and updates information about internship and employment opportunities regularly. Also, in order to meet the needs of individuals and reinforce their willingness to study at Ling Tung University, the center has recently launched a job-matching project playing as an intermediary between students and businesses. This innovative project has created a win-win situation. Students, on one hand, can start accumulating work experiences at a young age, which prepares them for future career. On the other hand, the implementation of the job-matching project bridges the gap between industry and school and creates invaluable opportunities of industry-academic cooperation.

Like the Career Development Center, the Continuing Education Office also plays a key role in promoting graduates' employability and strengthening their competitiveness. The office encourages alumni and residents of the community to obtain useful certifications by providing a variety of courses and training sessions ranging from languages to computer sciences. In industries, putting the customer first is key to success. At Ling Tung University, we always take pride in putting students first. The main objective of these courses is to bridge skill gaps preventing alumni from getting higher paying jobs. Thus most of the courses offered by the continuing education office are scheduled either in evenings or on weekends, which gives flexibility to those who are really interested in furthering their careers. To check the effectiveness of our strategies for promoting employability, the Career Development Center keeps tracking of students' employment after graduation using questionnaires. Students will be contacted and encouraged to fill out a questionnaire regarding their employment status three months after leaving Ling Tung University. A second questionnaire will be administered to students 12 months after graduation. Owing to the efforts of the staff and faculty in the Career Development Center and the Continuing Education Office, the employment rates of graduates have been fair in the past three years. Figure 5 illustrates the employment rates of students three months after graduation.

As shown in Figure 5, the employment rates in 2012, 2013, and 2014 are 70.92%, 88%, and 55% separately. In 2013, there was an obvious increase. In 2014, there was a dramatic decline in employment because a large number of students decided to serve in the army right after graduation. The results and feedback of these questionnaires are of great importance. They have been used to help the directors evaluate and adjust their strategies to prepare students for a brighter career.





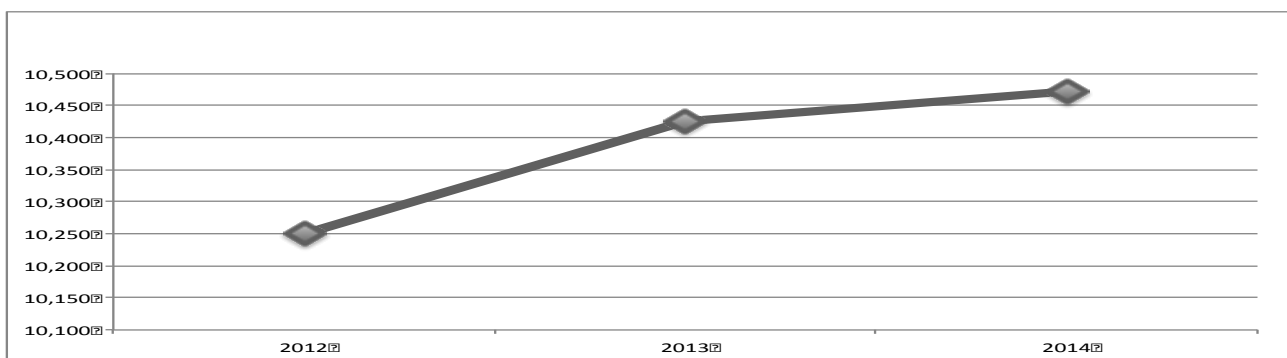
**Figure 5. Follow-up survey of graduates**

Source: Data provided by the Career Development Center of Ling Tung University

#### 4. ACHIEVEMENTS

The idea of the RICE Cycle corresponds to the basic concept of TQM. Within the RICE Cycle, the whole process of recruitment, instruction, coaching, and employment must follow the principles of Plan-Do-Check-Act (PDCA) to maintain education quality of the university. Indeed, the significance of such innovative management has been self-evident in certain achievements the university has made.

First, the success of quality management in student recruitment is reflected in enrollment as shown in Figure 6. In 2012, the number of students enrolled at Ling Tung University was 10,250. In 2013, total enrollment was 10,425. In 2014, there were 10,472 enrolled students. Despite the declining number of students from vocational education backgrounds in Taiwan as indicated in Figure 1, a steady growth in enrollment at Ling Tung University has been found. According to the statistical report of the Ministry of Education, Ling Tung University has been ranked in the top 21 universities of technology in Taiwan and 5 in central Taiwan for three consecutive years. These achievements were attained through statistics-driven planning, training in student recruitment, and efforts the faculty and staff put into recruitment.



**Figure 6. Follow-up survey of graduates**

Source: Data provided by Office of Academic Affairs of Ling Tung University

Second, the employment of quality management in instruction and coaching has strengthened the competitiveness of Ling Tung University in various aspects, including the competition of the Teaching Excellence Project, an award initiated by the Ministry of Education in Taiwan in 2005.

The goal of the Teaching Excellence Project is to help universities advance curriculum and improve infrastructure so that universities can create a better learning environment for students. Specifically, the ultimate goal the government wants to achieve is to enhance teaching quality and boost student learning through the Teaching Excellence Project.

Given its reliable funding sources, the competition of the Teaching Excellence Project is highly valued by both universities and universities of technology. The amount of funding, however, is limited. Consequently, the number of winners is limited and the competition is always fierce. Ling Tung University's dedication to providing high quality teaching has made it a frequent winner in the competition. This year Ling Tung University is awarded again for another two-year Teaching Excellence Project (2015-2016) after it was first awarded in 2011. Also, Ling Tung University has received outstanding scores in National College Evaluations by the Ministry of Education. In the 2012 evaluation, 14 undergraduate programs were graded A+. These achievements are real reflections of the university's excellent performance in instruction and coaching.

As far as employment is concerned, Ling Tung University has allocated a lot of resources to promoting employability. As demonstrated in Figure 5, the employment rates of graduates have been above 55% for three consecutive years. That is to say, during their study at Ling Tung University, at least half of the students had developed skills and characteristics of responsibility that helped them secure a job after they left the university. In addition, the university has successfully cultivated talents in different fields and earned a reputation as one of the leading institutions offering high-quality training in business and design. According to the 1111 Job Bank (2015), Ling Tung University is ranked in the top four universities of technology in central Taiwan favored by national and international companies. All these successful achievements can be attributed to its implementation of the RICE Cycle focusing on quality, a competitive advantage needed in the maintenance and development of the university.

## 5. CONCLUSION

Most of the people in Taiwan do not regard universities of technology as the mainstream in higher education, compared with general universities aiming at developing research talents and knowledge. Students attending general universities are always assumed to be superior to those studying in universities of technologies. Parents also believe that general universities can guarantee a good job in the future. In addition to the threat caused by declining fertility rates in Taiwan, this stereotype has even made the survival of universities of technology more difficult. Fortunately, Ling Tung University has taken the current crisis as a chance for change and realized that the future of universities of technology must be driven by continuous improvement. Support and trust of parents and students determine the destiny of universities of this type. To convince them of the value of the school, we need a positive brand image, which can be achieved by quality management. As a matter of fact, the concept of TQM has facilitated the birth of innovative management in higher education, specifically the RICE Cycle, according to which total management in recruitment, instruction, coaching, and employment is central to continuous improvement. Such innovative management promises students high quality education and future employment success. Once the university becomes one of students' top choices, the future of the university is secured. What's more, it should be noted that the success of the RICE Cycle, to a great extent, relies on total participation of the university faculty and staff in recruitment, instruction, coaching, and employment. Literally, total participation helps participants develop a sense of ownership, which empowers them in a sense and creates a particular corporate culture. Such a culture will unite members of the organization and encourage them to fight for the same goal. It has been argued that TQM practice can be enhanced by an organizational culture (Baird, Hu, & Reeve, 2011). As quality management and total participation becomes a norm and part of an organizational culture, the overall performance of the university improves, too. In short, Ling Tung University's performance excellence in various

evaluations and student achievements has been built on its belief in quality. Continuous improvement without a doubt, plays a key role in overcoming future challenges and achieving sustainability.

## REFERENCES

- Baird, K., Hu, K. J. & Reeve, R. (2011). The relationships between organizational culture, total quality management practices and operational performance. *International Journal of Operations & Production Management*, 31, 789-814.
- Chang, F. C. I. (2014). *TQM at Tamkang University*. Taipei: Tamkang University.
- Coate, L. E. (1994). Implementing total quality management in a university setting. In H. I. Costin (Ed.), *Readings in total quality management* (pp.27-38). Fort Worth: Harcourt Brace & Company.
- Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: The MIT Press.
- Deming, W. E. (1993). *The new economy for industry, government, & education*. Cambridge, MA: The MIT Press.
- Evans, J. R. & Lindsay, W. M. (2008). *Managing for quality and performance excellence*. Mason, Ohio: Thomson Business and Economics.
- Foster, I., Kesselman C. & Tuecke, S. (2001). The anatomy of the grid: Enabling scalable virtual organizations. *International Journal of Supercomputer Applications*, 2001(3), 200-222.
- Huang, Y. Y. (2014). *Innovation and practice of TQM at Tsing Hua University*. Taipei: Global Views.
- Job Bank of 1111. Survey of Taiwanese graduate employment. Retrieved August 12, 2015 from <http://hs.1111.com.tw/collegeFavorit.aspx>
- Lewis, R. G. & Smith, D. H. (1994). *Total quality in higher education*. Delray Beach, FL: St. Lucia Press.
- Ministry of Education. (2014). Statistical reports. Retrieved from <https://stats.moe.gov.tw/Ministry>
- of Interior's Department of Household Registration. (2014). Statistical reports. Retrieved from <http://www.moi.gov.tw/stat/index.aspx>
- Omachonu, V. K. & Ross, J. E. (2004). *Principles of total quality* (3rd ed.). Boca Raton, FL: CRC Press.
- Powell, T. C. (1995). Total quality management as competitive advantage: A review and empirical study. *Strategic Management Journal*, 16, 15-37.
- Sallis, E. (1996). Linking quality and financial management: A college case study. *Developing Quality Schools Newsletter*, 1, 2, Ontario Institute for Studies in Education, Toronto.
- Sallis, E. (2005). *Total quality management in education* (5th ed). New York: Taylor & Francis.
- Toch, T., & Rothman, R. (2008). *Rush to judgment: Teacher evaluation in public education*. Washington, D.C.: Education Sector.
- Weisberg, D., Sexton, S., Mulhern, J. & Keeling, D. (2009). *The widget effect: Our national failure to acknowledge and act on differences in teacher effectiveness*. Brooklyn, NY: The New Teacher Project. R.