

## Implementing the Taiwan TrainQuali System (TTQS): a case study of a pharmaceutical company

Chieh-Ling Lo<sup>†</sup>, Chih-Yung Tsai<sup>‡</sup>, Chun-Chi Lan<sup>†</sup> & Mei-Hui Lin<sup>†</sup>

Mingdao University, Changhua, Taiwan<sup>†</sup>

National Penghu University of Science and Technology, Penghu, Taiwan<sup>‡</sup>

**ABSTRACT:** The knowledge-based era has ushered human capital as one of the most productive emerging assets in business. Therefore, numerous companies have been devoted to establishing training programmes to cultivate well-trained employees. To assure training system performance and upgrade the competence of the company, the Bureau of Employment and Vocational Training, Council of Labor Affairs, Executive Yuan, Taiwan, adapted foreign manpower training policies to develop the Taiwan TrainQuali System (TTQS), with plan, design, do, review and outcome being the main components. This study considered a pharmaceutical company as an example to investigate the process of implementing TTQS. The results provide several suggestions on how to increase the efficiency of the implementation process.

### INTRODUCTION

Most companies in Taiwan have previously emphasised the production process and outcomes instead of human resources. However, when the scope of companies increased with increasing numbers of employees, human resource management was found to be lacking.

The major types of companies in Taiwan are in the high-tech and service sectors; as a result, the core competitive competence of these companies depends on the quality of human capital.

At the turning point of the business environment, many companies hold several training programmes to improve the quality of their human capital in order to enhance their competitiveness. However, if a company ignores the real needs of employees and forces them to participate in unnecessary training programmes, the result is a waste of capital and time.

To promote company motivation to execute training programmes, to improve HR professional competence, to ensure the reliability and accuracy of the training process, and to raise training effectiveness, the Bureau of Employment and Vocational Training, Council of Labor Affairs, Executive Yuan, Taiwan, adapted foreign manpower training policies and developed the Taiwan TrainQuali System (TTQS), with plan, design, do, review and outcome (PDDRO) as the main components.

TTQS provides several guidelines for assuring that the institution has professional competence in executing training programmes, and that the outcome after training enhances institutional competitiveness. These guidelines include:

- Integration: considering the company's vision, strategy, goals, plans and needs;
- Conformation: thinking systematically to keep up with international standards;
- Consistency: ensuring consistency among organisational requirements, personal professional competence and training plans;
- Fulfilling: executing the PDCA (plan-do-check-act) management circle; and
- Continuous: continuous improvement [1][2].

Because of the necessity of popularising TTQS, this study investigates the process of implementing TTQS in a company A that is devoted to pharmacy products and services. Based on the difficulties in the implementation process, several suggestions and solutions are provided for other TTQS implementation cases in the future.

## LITERATURE REVIEW

### Training

It was found in studies that employee skills may attenuate gradually over time. Because many Taiwan companies are focused on global development and diversification, well-planned training programmes are critical to retain a competitive advantage.

What is training? Gilley and Egglund stated that training is learning for increasing work performance [3]. Hsu commented that training is for technology and knowledge innovation [4]. Chang regarded training as upgrading the work competence of employees to adapt themselves to any situational changes [5].

Training satisfies the needs of the work environment and has a strong effect on the quality of human resources. Training can help new workers understand the vision and culture of the organisation, and shorten their accommodation time. Training can reshape the work attitude of senior employees to increase job efficiency and help prepare them for career development. For supervisors, training can strengthen their leadership and teamwork spirit to achieve business goals. In summary, training can promote competitive competence to ensure business continuity.

A well-planned training system includes five stages:

- Analysis: needs assessment;
- Design: course planning;
- Development: training materials provided;
- Implementation: training programmes' execution; and
- Evaluation: training effectiveness [6][7].

Each of the stages must be monitored strictly to ensure training quality. Seyfried et al suggested three frameworks to control training quality:

- Training structure (including place, time, plan and content);
- Training process activities; and
- Training outputs [8][9].

Albu argued the importance of minimum standards for training to:

- assure top management that employees receive effective training;
- ensure that the training meets the needs of employees and is an effective use of their time;
- foster consistency in employee training;
- demonstrate that the resources applied to training are used effectively and efficiently; and
- support the continuing improvement of employee training [10].

The UK produced Investors in People (IIP) in 1990, and the ISO (the International Organization for Standardization) announced ISO10015 Quality Management - Guidelines for training in 1999, both of which are policies to upgrade training quality and improve manpower capital. To follow the international trend of training quality policies, the Taiwan Government is devoted to establishing the Taiwan TrainQuali System (TTQS) for promoting training quality.

### Taiwan TrainQuali System (TTQS)

Because of the current challenging business environment, managers today fully realise that effective and systematic training has become one of the most important organisational policies. A reliable assessment tool is required to assist organisations to evaluate training and create high-quality manpower. The Bureau of Employment and Vocational Training, Council of Labor Affairs, Executive Yuan, Taiwan, has adapted foreign manpower training policies to develop the Taiwan TrainQuali System (TTQS), which could serve as an assessment and management tool to promote effective national human capital investment, upgrade human resource competitiveness and strengthen quality of vocational training [11].

As mentioned previously, the basic content of TTQS includes plan, design, do, review and outcome (PDDRO). Detailed content is shown in Table 1. The *plan* stage focuses on the connection between training programmes and business operational goals, and emphasises the capability to execute training. Clarity, connectivity, systemisation and competence are the guidelines for completing the plan process. Focal points of the *design* stage include systematic design in the training programme, stakeholders involved in the training process, goals orientation in training and a standardised buying procedure for training products and services.

The arrangement of trainees, class materials, lectures and training methods are important issues in the design process. The degree of agreement concerning the training plan and implementation, and the degree of systemisation in training records and management are required in the *do* stage. To fulfil training goals is the main task in this phase. In the *review* stage, TTQS puts weight on two areas: regular assessment and comprehensive analysis, and process monitoring and exception handling. Finally, the *outcome* stage values diversity and integrity of the training results evaluation, and the general function of the training system (i.e. multi-feedback facilitates continuous improvement of the training system). The five stages of PDDRO move in a circle as depicted as Figure 1 [1][12]. By executing TTQS, provides an opportunity for a company to reflect what their business is and to ensure training quality.

Table 1: Content in TTQS.

Plan	1. Clarity 2. Connectivity 3. Systemisation 4. Competence
Design	1. Systematic design in the training programme 2. Stakeholders involved in the training process 3. Goal orientation in training 4. Standardised buying procedure for training products and services
Do	1. Degree of agreement on the training plan and implementation 2. Degree of systemisation in training records and management
Review	1. Regular assessment and comprehensive analysis 2. Process monitoring and exception handling
Outcome	1. Diversity and integrity of training results evaluation 2. General function of the training system (i.e. multi-feedback facilitates the training system for continuous improvement)

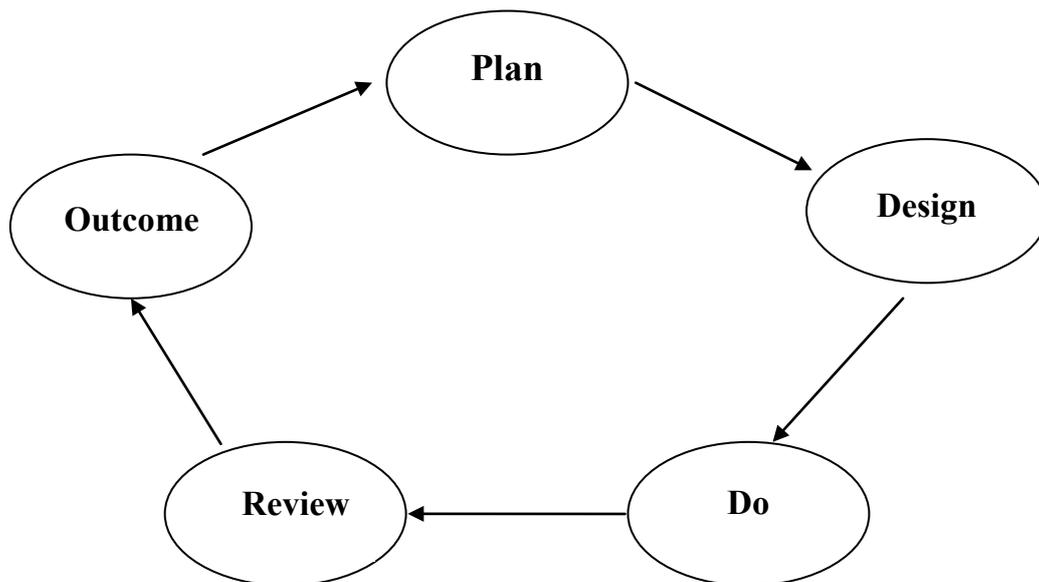


Figure 1: The PDDRO circle [12].

#### INTRODUCTION OF COMPANY CASE STUDY

Company A was founded in 2007 and is dedicated to pharmaceutical research and development (R&D). Its unique technology can be applied to food products and drugs to protect public health. The experienced R&D team in company A holds the service concept of *integrity, fairness, common interests and friendship*, and maintains a faith in *practical medical and health research to improve human health and well-being*.

The training policies in company A include: creating a suitable environment to help the continuous learning and training of employees; and implementing education and training to increase the value of human resources.

Its training objectives change according to the annual company operational strategy. Its training curriculum system has two parts: a commonality course (orientation, manager-cultivated training and management skills development), and

on-the-job professional courses. Company A has previously executed training programmes. In applying for government funding, Company A has attempted to implement TTQS to improve its training standards and quality to meet government regulations.

#### IMPLEMENTING TTQS IN COMPANY A - A CASE STUDY

Introducing the content and definitions of TTQS to top managers and HR staff is the first implementation step. Next, the appraisal criteria of TTQS are also developed. Third, applying for government funding and conforming to TTQS demands requires considerable paperwork.

The solution is to have checklists to remind the company to prepare documents for each evaluation index. The content of related documents is decided after several discussions with group members and the checklists produced from this research are listed in Tables 2 to 6. Based on the checklists, the connection among organisation vision, employee cognition and training tasks become obvious.

#### SUGGESTIONS FOR COMPANY A - A CASE STUDY

The training quality of Company A improved after the TTQS implementation, but a number of problems still required solutions. First, the collection of substantial data and information was required for the promotion of TTQS. How to sort, arrange and complete the related documents should be improved. Second, the essence of TTQS, including PDDRO, was not fulfilled thoroughly in company A. This study suggests that company A publicises related concepts on PDDRO and attempts to solidify the implementation process.

Third, training needs are currently decided by the HR department, and company A must increase its focus on employee opinions. Fourth, company A must enhance its HR professional competence and hire more employees to provide a complete HR service. The human resources staff should assume more responsibility for strategic planning instead of administrative work.

Fifth, executive managers identified the necessity of training, but the business priority in company A focuses on sales and product development for consolidating company growth. A more stable operation in the future should result in more training development. Sixth, company A could provide more off-the-job training programmes and have a softer curriculum, such as changing work attitude, stimulating teamwork spirit and mind development.

Table 2: Checklist for the *plan* stage.

Content	Index	Documents
1. Clarity	1a. Declaring vision/mission/strategy of the organisation	1. Operational plan 2. Market investigation
	1b. Setting objectives and needs	1. Operational plan 2. Training plan 3. Position description 4. Career map 5. Sheet for performance investigation
	1c. Clarity of training policy	1. Operational statement of training system 2. Plan of training stage 3. Standard statement of off-the-job training
	1d. Clarity of core training category	1. Databank of curriculum 2. Training plan 3. Position description
2. Connectivity	2. Connection between training plan and Operational objectives	Training plan
3. Systemisation	3a. Quality management system and document compilation	1. Plan of training stage 2. Notice of training quality management 3. Notice of internal lecturer management 4. Standards of external lecturer selection
	3b. Related competence analysis in the training process	1. Position description 2. Analysis of incompetence
4. Competence	4a. Administration management of training organisation	1. Experience and professional competence requirement for HR employees
	4b. Training-related competence	1. Position description of HR employees

Table 3: Checklist for the *design* stage.

Content	Index	Documents
1. Systematic design in the training programmes	1. Systematic design in training programmes	1. Notice of training management 2. Independent Web site for training 3. Operational statement of training system
2. Stakeholders involved in the training process	2. Involvement process for stakeholders	1. Meeting records of departmental issues 2. Meeting records of instructor evaluation group
3. Goals orientation in training	3. Integration of training and objectives	1. Operational plan 2. Position description 3. Analysis of incompetence 4. Department needs for training
4. Standardised buying procedure for training products and services	4a. Selection standards for the training product or service	1. Notice of internal lecturer management 2. Standards of external lecturer selection 3. Lecturer evaluation group 4. Sheet for external lecturer selection
	4b. Standardised buying procedure for training products and services	1. Notice of internal lecturer management 2. Standards of external lecturer selection 3. Records of analysis on curriculums every year

Table 4: Checklist for the *do* stage.

Content	Index	Documents
1. Degree of agreement on the training plan and implementation	1a. Plan-fitting the selection of participants, teaching materials, lecturers, and teaching methods	1. Position description 2. Sheet for teaching material examination 3. Invitation for external lecturer 4. Sheet for curriculum demand 5. Analysis of incompetence 6. Sheet for instructor selection
	1b. Learning outcome transfer	Before training  1. Department meeting  After training  1. Training evaluation checklist 2. Feedback from lecturer 3. Sharing from training 4. Independent Web site for training 5. Plans for learning outcome transfer
2. Degree of systemisation in training records and management	2a. Classification and database establishment of training data	1. Independent Web site for training 2. Documents systematised by HRIS
	2b. Degree of systemisation for management information	1. Independent Web site for training 2. Documents systematised by HRIS

Table 5: Checklist for the *review* stage.

Content	Index	Documents
1. Regular assessment and comprehensive analysis	1. Evaluation report and regular comprehensive analysis	1. Training self-criticism meeting every season 2. Summarised report after each class 3. Signs of trainees
2. Process monitoring and exception handling	2. Monitoring operational process and handling exceptions	1. Participant satisfaction analysis 2. Independent Web site for training 3. Checklist for preparation before class 4. Suggestion box for training 5. Self-criticism meeting 6. Meeting records on handling exceptions

Table 6: Checklist for the *outcome* stage.

Content	Index	Documents
1. Diversity and integrity of training results evaluation	1. Diversity and integrity of training results evaluation	1. Satisfaction investigation 2. Test 3. Learning report 4. Practical exercise 5. Sales evaluation 6. Action plan of trainee 7. Interaction platform
2. General function of the training system (i.e. multi-feedback facilitates the training system for continuous improvement)	2a. Financial part	1. Planning and assigning training budget 2. Employee training records preservation
	2b. Skill part	1. Satisfactory analysis charts 2. Learning organisational development
	2c. Social part	1. Present the numbers of staff leaving and the numbers of those who possess insurance

## CONCLUSIONS

From the case study of implementing TTQS in company A, it was found that TTQS had upgraded training effectiveness. Successfully implementing TTQS into the company not only changed the manner in which it conducted training programmes, but also changed its mindset and attitude to improving training quality. Having well-planned checklists to remind HR employees to prepare related documents also strengthened the TTQS fulfilment. If the execution of training programmes fits the TTQS requirement, it also assists the company to pass government examinations, receive funding and save considerable operational costs. If TTQS is not only for HR staff, it should be supported by top managers and all employees.

Company vision and strategy is needed to establish TTQS. A knowledge database and a knowledge-sharing platform will transfer training output to make job performance more effective. TTQS provides a guideline for Taiwan companies to assure their training quality. Unfortunately, it is not widespread among most companies. The current study suggests that the Government should strive to promote and provide more incentives, such as subsidies and certification, to popularise this valued system. Simplifying related procedures and formalities also encourages companies to adopt this model.

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