

## **THE DEVELOPMENT OF AN EDUCATION PROVISION MODEL TO ENHANCE PROFESSIONAL COMPETENCES OF GRADUATES IN THE WORKFORCE SHORTAGE FIELDS OF STUDY**

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**Abstract:** The purpose of this research is to develop professional competency model in the field of goldsmith and jewelry education and food industry and service education. The model was developed with the learning process of the national education act 1999 and the higher education commission 15 year plan in lifting up higher education quality standard, producing higher workforce, emphasizing on international competition, building network among institutions and certifying qualification in vocational area with border countries. The competency ideas offered to the research are from Mc. CLElland theory and UNESCO in career and vocational qualification competency.

For research design, populations are of the five goldsmith and jewelry institutions and five food and service industry institutions in the interview with the experts, the specialists, the employers and the institution administrators. Only the open-ended questionnaire technique was used for the instructors. After the interviews, data was analyzed by the content analysis, mean, S.D. and F-Test.

Summary of research is that competency of the graduates should come from industry standard. The experience study from the industry has made specialized skill for the student. Institution and industry should corporate each other with qualification in curriculum planning and assessment.

- Industry should be part of field experience and institutional curriculum by being committee to define the skill standard, and for providing the standard set-up for solidification of the improved system of national qualification and quality assurance process as the stakeholders' responsiveness. The collected data shows the key competency, were the experience in working, the insight attitude, trait, and knowledge. The highly skill in verbal representing English communication is very important as well as computer skill.
- For the instructors, their strategies are knowledgeable in the original style of jewelry, searching for the new knowledge enthusiastically and emphasizing in self-

evaluation with result-based theory. The instruction should find the needs of the stakeholders. They using transferable to each other by co-operating learning between industry and institution. The completing model complies with moral attitude in working, love, and honesty for self-sustain and organization. The contest and exhibition to present the work piece to enter the professional world with interpersonal relationship and the technological applied for generation the new knowledge.

**Keywords:** Goldsmith and Jewelry Industry, Food Industry and Service, Professional Competency Model, Education Provision, National Qualification Framework, National Education Act, Higher Education Quality Standard, Higher Education Commissions

### **Introduction**

Thailand has strength of economic character by exporting food as the fifth ranking country and jewelry and ornament as the tenth ranking country in the world. Recently it has problems found of losing competitive in the world class to the nearby country by technological development and productivity. For example, food in transformation, value added packaging, entrepreneurship guidance, modern service, and excellent standard introduction. For jewelry and ornament, new technology such as knowledge in Haccp, taste and design are needed, especially in both fields requested to have product presentation, advertisement, marketing and entrepreneurship as well.

### **Objectives**

The purposes of this study were:

1. To define concurrence of professional competency of graduates in the workforce shortage fields of food industry and service and fields of goldsmith and jeweler.
2. To develop competency models in the workforce shortage fields of food industry and service and fields of goldsmith and jeweler.

### **Literature**

The era of education reformation in Thailand was from the education act on 2542B.E. That underlines Thailand has seen essence of education since. There are several concerns other than curriculum in the reformation to have education improvement. For example, learning to students should have fit able, suitable and applicable content and activities to student should be interesting

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and practical. In addition, knowledge application, practicable skill in thinking process, situation management, emotional management, professional practice and solving problem are required for the improvement and finally reformation. Intuition should use research as a part of teaching and learning and give a hand to the community to develop student capability. At last emphasizing instructors to manage learning environment and encouraging attitude of “love to read” and “eager to study further” of students could ameliorate the outmoding education. Response to this quality for learning in the higher education starts lifting up higher education plan 15 years (2551BE-2556BE) with regard to labor market and the graduated qualities, enhancing the competitiveness, net-working empowerment and career qualification cross border with university abroad (Higher Education Commission 2551BE).

Moreover, the ministry of commerce gives the economic plan for value added product studying for the vocational student and enhance the learning with industry field experience and curriculum engineering with trader association ([www.industry.go.th](http://www.industry.go.th) 2008). Revitalize the vocational student, the Industry Assembly joined with the plan of studying new technology of food (Haccp) and to develop qualified learning model implied to the industries ([www.fti.or.th](http://www.fti.or.th) 2009). For the required career competent, Mc.Clelland thought about people who has a competency base as knowledge, efficient skill, identity and trait will be an effective work with high performance and high achievement distinctively. The competency defined to personal competence, functional competency, organization competency and work job competency. About the new era of learning, Kolb (1988) has concerned with learning and experiencing. Reflection and observation for instructor’s role would be as diverging, assimilating, converging and accommodating. The students learn with group job project, presentation, vehicle computer simulation and hand-on repair simulation. Spady (1998), the sociologist and the director of heart life international organization empowers the systemic learning with outcomes based learning. He thought about no translating adequate career preparation for young people. He believed on values, attitudes on behavior. The new foundation should be of any truly learner-centered system, human potential, domain of learning, future condition is declared with life performance.

The idea of career education was settled by UNESCO in 2005. It was stated the competency should be observed with qualified worker (ILO). The students in the institutions should have more skill with the field experience from the industries. The steps were awareness, orientation, exploration and presentation to work with knowledge, attitude and experience in really work with transferability skills

and go to be productive worker.

### **Methodology**

The descriptive research method is survey and interviews with the specialists, the experts, the employers and the higher education administrators. Only questionnaires with interview techniques were used as a tool distributed to the instructors. Of the research, population in food industry and service program were Rajabhat Suan Dusit University, Rajabhat Suan Sunandha University, University of the Thai Chamber of Commerce, Srinakharinvirot University and Rajamangala University of Technology Phra Nakon and another of goldsmith and jeweler program were Poh-Chang college of arts Rajamankala University of Technology Rattanaosin, Chiangmai University, Burapa University, Srinakharin University and College of Kanjanaphisek (the Royal goldsmith college). All data were analyzed by content analysis such as means, standard deviation, and F-test.

### **Research Procedure**

#### **1. Stage of study**

The researcher had studied in

1.1) Concept and Theory as vocational concept and Mc. Clelland’s theories of competencies.

1.2) Education as result based model of learning, Kolb’s experience learning, module’s model of learning, UNESCO’s career education qualification and Office of Higher Education Commission’s policy in Thailand qualification framework (TQF) and how the curriculum settle with government and private sector in education provision.

1.3) Economic as Thailand’s food industry and service and goldsmith and jewelry’s trade and Thailand economic situation.

#### **2. Stage of interview and questionnaire**

2.1) The review questions for the specialists, the experts, the employer, and the university’s Administrators (faculty level) and the questionnaires for the instructors were submitted to the six experts as mentioned below for content validity.

- a) One associate professor of geology.
- b) One associate professor of research methodology.
- c) Three assistant professors of administration in vocational education.
- d) One assistant professor of food industry and service

2.2) The review questions were submitted as trial study to the administrators of the College of Kajanaphisek.

2.3) The questionnaires with rikert scale were submitted as trial study to the instructor of Suan dusit

Rajabhat University for quality of checklist in terms of construct validity.

### 3. Stage of model improvement

The model would be designed from the analyzed data. The focus group will be performed with the vocational education experts from the two programs, the higher administrators from the Higher Education Commission and the specialist and the industry owners. Thus, the researcher collected the ideas to prove the model and present to the government to implement further

### Research Finding

Research finding of both goldsmith and jewelry program and food and service program are follows:

#### 1. The Institution Administrator

They are partnership with private sector in order to have students gained professional skill, thus still not in co-operative learning system. The institutions have looked for position in labor market so then invited employers to be institution's committee or consultants. At the end, decision making of result-based learning during professional competency process would mainly focus on achievement of work. In observing engineering competency curriculum, institution is going to revision national qualification framework.

#### 2. The Employer

Evaluation in competency of graduated should come from employers. Thus, it would be benefit for institution to invite employers to be committee in order to serve marking demand. For example, in food and service industry area, competency curriculum should be revised every term of study. That makes graduate's outcomes almost 100% fulfill the demand. Additional of result-based, student must have trait and good attitude in order to accomplish work. Also, team work and group study is the key in industrial sector for more professional competency model in the area such as of management trainee, of marketing, of art, of food science and even of material

#### 3. The Expertise

They focus on competency of graduated with national qualification framework scheme situated in competency curriculum by higher education act 2009.

The national qualification framework will subsidize vocational qualification criteria to benchmark with cross-border along Asian country. For functional competency, qualification career framework gives performance, underpin knowledge and skill, which help to the behavior working and learning.

#### 4. The Specialist

Knowledge of both food and service program and

goldsmith and jewelry program are on basis of Thai culture. It is not only in Thai food and service but also in Thai craftsmanship of goldsmith and jewelry. Along with the idea, professional competency curriculum offers model of job-learning structure such as skillful practice and traditional moral thus for globalization.

However, since most of country's revenue gives some concern to government, they require more systematic education not only for healthy but also for beauty of work in labor market. Thus, suggestion of the effectiveness outcome is putted on the two programs. That means learning process should be modernized and has more awareness in benefit and satisfaction of customer and employer as main point of professional competency program.

#### 5. The instructor

Instructor's opinion in the way of enhancing competency during class work is additional other than curriculum such as attitude, moral and ethics. In the area of food and service industry, professional awareness is more concern in several topics for example HACCP, value of healthy food, service manner. In addition, in the area of goldsmith and jewelry industry, professional awareness is concern in material quality and standard price.

### Key to Success

1. The qualitative data collections shown that the instructors had not been trained such as know ledger in curriculum planner well enough. More field trips to abroad and supervisory in modern market are required for satisfaction and qualification of graduate standard. In addition, the institution administration must provide intensive courses to instructors to enhance their competencies.

2. The field experience with the industries should come with recommendation for Professional competency in knowledge, skill and attitude.

3. The joint venture or stakeholder between the institutions and the industries should be part of the success with subsidy of government.

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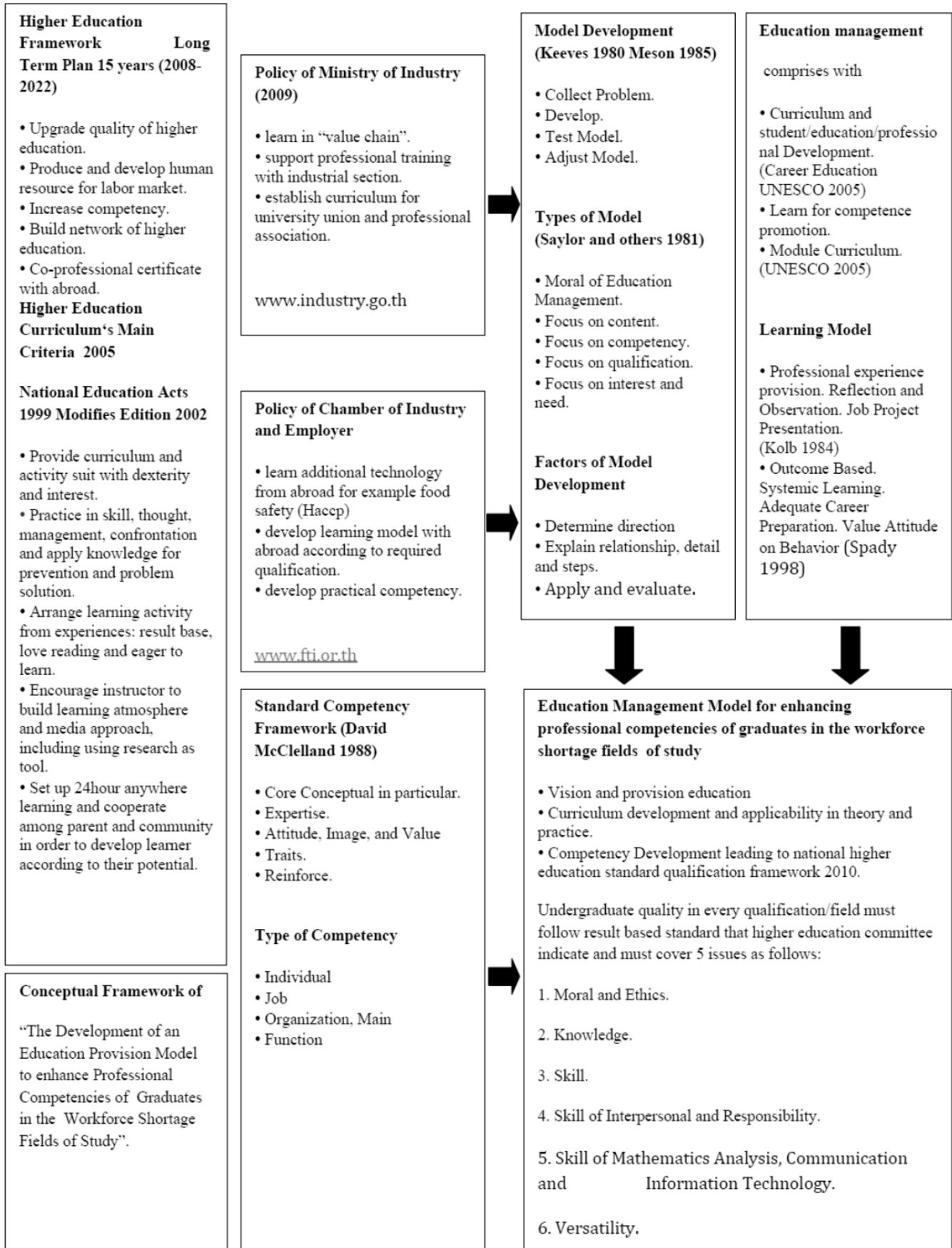
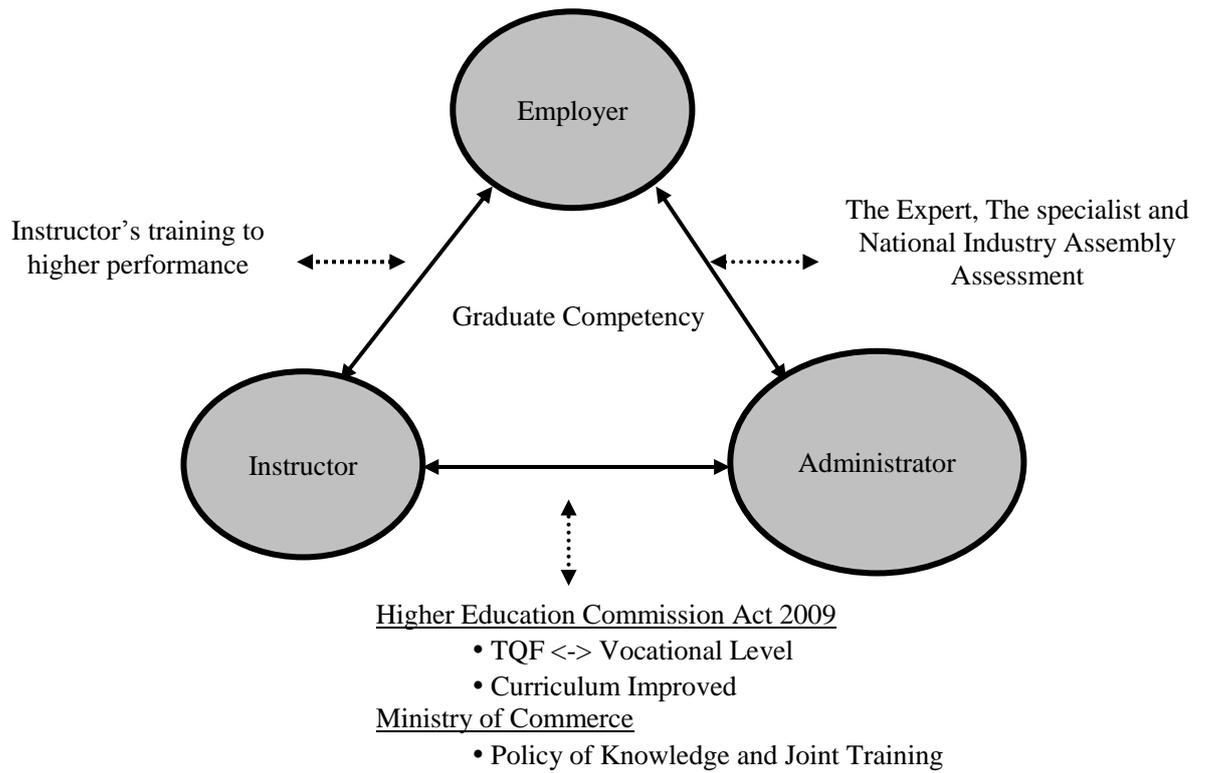


Figure 1: Conceptual Framework



**Figure 2: Competency Model with Education Provision**