

The Development of Cosmetology Related Departments of Five-Year Junior Colleges at Technological and Junior Colleges in Taiwan

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ABSTRACT

The purpose of this study is to investigate the development of cosmetology related departments of five-year junior colleges at technological and junior colleges. Literature review was used to analyze the development of cosmetology related departments, college features, curriculum, and the changes on enrollments over the years, and further explore the development process of cosmetology related departments of five-year junior colleges and the relations to related industries.

Key word: Education; Technological ;Junior Colleges;Cosmetology.

PREFACE

With the economic evolution and social atmosphere changes, cosmetology Industry has been diverse and prosperous, such as SPA, manicure and pedicure, bridal styling, cosmetics manufacture, cosmetics sales, hair salon, and medical cosmetology, among which the output value of cosmetics went up to 18.6 billion dollars in 2015 with an annual increase of 12.79% (about 2.1 billion dollars) due to the focus on cosmetic care of the consumer market and the market expansion of the business owners (Department of Statistics, Ministry of Economic Affairs). Besides, medical cosmetology growth cannot be neglected. Male patients seeking for medical cosmetology treatments increased 20% (Workforce Development Agency, Ministry of Labor).

The workforce demand increased rapidly due to the economic development of cosmetology Industry and the refined demand for the Industry. 1111 Job Bank (2017) released the job openings posted based on search keywords on 1/3/2017: 4,306 of cosmetics and hair, 1,880 cosmetics openings, 505 cosmetics instructors/technique instructors, 1,366 hair designers, 1,309 cosmetic therapists/aroma therapists, indicating an undeniable demand of workforce ranging from cosmetics manufacture to professional technique services.

The cosmetology Industry has become diverse with innovative management and premium service quality, which led to the refined quality control of cosmetology Industry. To discover intermediate level talents for cosmetology Industry, the five-year colleges in Taiwan carry the mission of educating intermediate level workforce with diverse adaptive education integrated with practical courses of technology and technique applications, such as internship, experiments, hands-on operations, project production, and license courses to culture students' professional techniques and employment abilities (Department of Technological and Vocational Education, Ministry of Education, 2016).

The Educational Yearbook stated that the ratio of education level and unemployment indicated junior college degrees were better for the employment market because of the high stability, flexibility, and employment competitiveness of the talents cultivated by five-year junior colleges (National Academy for Educational Research, 2017). This study focuses on department development history, department features and curriculum, and enrollments over the years to understand the development of cosmetology departments at five-year junior colleges and the contributions and values they brought to the economic planning and development in Taiwan.

Introduction of Cosmetology Related Departments at Five-Year Junior Colleges

Ministry of Education (2013) revised Clause 1, Chapter 1 of "Junior College Law": the goals of junior colleges are to enhance applied technology and techniques, cultivate employment competence, and culture practical professional talents. The department titles of cosmetology vary; thus, Department of Statistics, Ministry of Education coded them based on college standardized category inquiry: Service Code 8, Personal Services Code 81, Cosmetology Code 8108 (as shown on Table 1).

Table 1. College Department Titles of Cosmetology

| Domain Code/Title | Discipline Code/Title | Disciplines: personal services include food, clothing, sports, and recreation, such as restaurants, traveling, tourism, sports and leisure, and cosmetology. | Category Code/Title | Department Code/Title |
|---|-----------------------|---|-------------------------------------|---|
| 8 Service | 81 Personal Services | Category: integrate hi-tech, cosmetic care and fashion, cultivate cosmetic health care and stylists, talents for operation, management, planning, R & D, manufacture, and sales for cosmetics Industry. | 8108 Cosmetology | 810801 Department of Cosmetology (Fashion) (Styling) (Design) |
| | | | | 810802 Department of Cosmetic Applications (and Management) |
| | | | | 810805 Department of Beauty and Health Care |
| | | | | 810807 Department of Style Design and Fashion Performance |
| | | | | 810809 Department of Fashion and Cosmetology Application |
| | | | | 810810 Department of Hair Styling and Design |
| | | | | 810813 Department of Cosmetology and Hair Styling Design |
| | | | | 810817 Department of Fashion and Cosmetology Design |
| | | | | 810818 Department of Fashion Design |
| | | | | 810820 Department of Fashion and Cosmetology Design |
| | | 810821 Department of Fashion and Beauty Design | | |
| | | Category: All unspecified categories or college departments. | 81990ther Personal Service Category | 819901 Department of Fashion Business Management |
| | | | | 819914 Department of Medical Tourism |
| 819921 Department of Pet Care and Cosmetology | | | | |

Statistics provided by Ministry of Education (2017) indicated that sixteen five-year junior colleges in Taiwan offered cosmetology related courses including Bachelor Degree Program in Pet Grooming of Chung Hwa University of Medical Technology, Department of Cosmetology of Meiho University, Department of Applied Cosmetology of Nanya Institute of Technology, Department of Fashion Beauty Design of Lan Yang Institute of Technology, Department of Fashion & Cosmetology Design of Tungfang Design Institute, Department of Cosmetology and Fashion Design of Ching Kuo Institute of Management and Health, Department of Applied Cosmetology of National Tainan Junior College of Nursing, Department of Cosmetic Application and Management of Mackay Junior College of Medicine, Nursing, and Management, Department of Health and Beauty of Shu-Zen Junior College of Medicine and Management, Department of Styling & Cosmetology of Tzu Hui Institute of Technology, Department of Cosmetic Applications & Management of Cardinal Tien Junior College of Healthcare and Management, Department of Beauty & Health Care of Min-Hwei Junior College of Health Care Management, Department of Cosmetic Applications and Management of Yuh-Ing Junior College of Health

Care & Management, Department of Cosmetics and Health Care of Chung-Jen Junior College of Nursing, Health Sciences and Management, Department of Cosmetic Application and Management of St. Mary's Junior College of Medicine, Nursing, and Management, and Department of Styling and Cosmetology of Hsin Sheng Junior College of Medical Care and Management.

The compiled department titles showed that they catered to the development of the industrial market. Six of the five-year colleges mentioned above used cosmetic applications and management as the department titles, which implied that graduates could work in R & D in cosmetic biotech companies, cosmetic product sales, and beauty stores in department stores. Six of them used cosmetology and styling as the department titles, which implied the graduates could have jobs in the fields of beauty and skin care, nail arts, hair Industry, and bridal styling. Three of them used beauty and health care as the department titles, which led to the fields of aroma therapy health care, beauty and skin care, scalp care, and skin and body care. Pet cosmetology is a new addition that caters to the infinite business opportunities in the market with 50 billion dollars of annual output value. To cater to employment demands (Cao Tingting, 2014) and broaden the new horizon of cosmetology education in junior colleges, pet cosmetology license counseling was established so that the graduates could work as assistant pet cosmetologists, pet cosmetologists, pet shop staff, vet assistants, pet caregivers, pet trainers, and handlers.

Introduction of Features and Curriculum of Cosmetology Departments in Five-Year Junior Colleges

Cosmetology departments in five-year colleges offer flexible years of completion, credits allocation, more practical elective courses, which provide five-year junior college students with more practical courses and internship experiences on cosmetology, hair styling, and nail arts than those of general high or vocational high school students. The curriculum features of cosmetology related departments in five-year junior colleges include: (1) the first three years of the studies focus on the fundamental technique courses of skin care, hair styling, and facial care and obtaining Level C licenses for beauty, female hairdressing, and male hairdressing; (2) the goals of the fourth and fifth years focus on obtaining Level B licenses for beauty, female hairdressing, and male hairdressing based on students' interests. (3) internships are provided to the fourth and fifth year students in five-year junior colleges. Students can choose one-year, half a year, or summer and winter break internships in the fields of cosmetology, hair styling, and nail arts such as hair solons, cosmetic biotech companies, medical cosmetology, bridal Industry, nail arts, and aroma therapy skin care. Students not only obtain practical employment competence, but also increase the observation skills on customers and participate in the administrative operation of beauty organizations, hoping to cultivate students' passion on their careers through the internship experiences and learning (Ministry of Education, 2016). The following is the introduction of development of cosmetology departments, licenses, and curriculum features in five-year junior colleges:

1. The Development of Cosmetology Departments in Five-Year Junior Colleges

Based on the data gathered from "12-Year Fundamental Education- National Five-Year Junior Colleges World Wide Web" provided by Ministry of Education (2017) and from the web pages of the five-year junior colleges, sixteen five-year junior colleges were found. The establishment is shown below (Fig. 1):

| | | | | |
|---|--|---|--|--|
| *Cardinal Tien -Beauty & Health Care *Chungyu -Fashion Design *Hsin Sheng -Styling & Cosmetology *Chung-Jen -Beauty & Health Care *Ching Kuo IMH -Cosmetic Application 2008 | *Tatung -Cosmetology & Design * National Tainan -Cosmetic Applications *Tungfang Design -Fasion & Cosmetology 2010 | *Cardinal Tien -Beauty & Health Care(Recruitment terminated in 2012) *Tatung -Cosmetology & Design(Recruitment terminated in 2012) 2012 | 2014 | 2016 |
| 2007 *Meiho -Cosmetology *Lan Yang -Cosmetic Applications *Tzu Hui -Styling & Cosmetology *Cardinal Tien -Cosmetic Applications Beauty Design & Management *Min-Hwei -Beauty & Health Care *Yuh-Ing -Cosmetic Applications & Management *St. Mary's -Cosmetic Applications & Management | 2009 *Mackay Junior College -Cosmetic Application & Management | 2011 *Ching Kuo IMH -Cosmetology & Design *Shu-Zen -Health & Beauty | 2013 *Chungyu (Recruitment terminated in 2012) | 2015 *Chung Hwa -Pet Grooming *Nanya -Cosmetic Applications *Lan Yang -Fashion Beauty Design |

Fig. 1 The Development of Cosmetology Related Departments in Five-Year Junior Colleges

2.Introduction of Licenses of Cosmetology in Five-Year Junior Colleges

The required licenses vary depending on the nature of the departments. Cosmetics and fashion cosmetology require chemistry license besides beauty, female and male hairdressing licenses. Beauty and health care, cosmetology styling, and fashion design require licenses for beauty, female and male hairdressing. Moreover, the license for pet care and grooming falls on pet category, which is different from cosmetology and hair styling. The introduction of license programs (Table 2) in the existing sixteen five-year junior colleges gathered from “12-Year Fundamental Education- National Five-Year Junior Colleges World Wide Web” provided by Ministry of Education (2017) is shown below:

Table 2. Cosmetology Related License Programs in Five-Year Junior Colleges

| College Type | Name of the College | Licenses |
|--|---|--|
| Under Medical Care Systems | Department of Applied Cosmetology, National Tainan Junior College of Nursing | Level B & C licenses for beauty, female and male hairdressing, chemistry and other related licenses. |
| | Department of Cosmetic Application and Management, Mackay Junior College of Medicine, Nursing, and Management | |
| | Department of Cosmetic Applications & Management, Cardinal Tien Junior College of Healthcare and Management | |
| | Department of Cosmetic Applications and Management, Yuh-Ing Junior College of Health Care & Management | |
| | Department of Cosmetic Application and Management, St. Mary's Junior College of Medicine, Nursing, and Management | |
| | Department of Styling & Cosmetology, Tzu Hui Institute of Technology | Level B & C licenses for beauty, female and male hairdressing, and other related licenses. |
| | Department of Styling and Cosmetology, Hsin Sheng Junior College of Medical Care and Management | |
| | Department of Beauty & Health Care, Min-Hwei Junior College of Health Care Management | |
| | Department of Cosmetics and Health Care, Chung-Jen Junior College of Nursing | |
| | Department of Health and Beauty, Shu-Zen Junior College of Medicine and Management | |
| Under General or Technological College Systems | Bachelor Degree Program in Pet Grooming, Chung Hwa University of Medical Technology | Level C Pet Grooming Technician for Beauty, TGA Pet Technician for Beauty, KCT Pet Technician for Beauty, China Pet Technician for Beauty, Pet Care License, PDA, TKA, and KCT Handler Licenses. |
| | Department of Applied Cosmetology, Nanya Institute of Technology | Level B & C licenses of beauty, female and male hairdressing, chemistry, and other related licenses. |
| | Department of Fashion & Cosmetology Design, Tungfang Design Institute | |
| | Department of Fashion Beauty Design, Lan Yang Institute of Technology | Level B & C licenses of beauty, female and male hairdressing, chemistry, and other related licenses. |
| | Department of Cosmetology and Fashion Design, Ching Kuo Institute of Management and Health | |
| Department of Cosmetology, Meiho University | | |

Introduction of Curriculum Features of Cosmetology Related Departments in Five-Year Junior Colleges

According to Clause 28 of “Junior College Law”, students are required to complete 220 credits to graduate from a five-year junior college. The following was found after compiling the curriculum structures of cosmetology related departments in five-year junior colleges: (1) the focus of curriculum features was on cosmetics and beauty and health care if the college was under medical care systems; (2) if the college was under general or technological college systems, the focus was on fashion styling and cosmetology, featuring painting and makeup, hairdressing, and overall styling curriculum.

The curriculum development is based on the definitions of department titles. The curriculum structures of cosmetology related departments of the sixteen junior colleges were classified into four categories based on the data from Ministry of Education (2017): Cosmetics, Cosmetology and Styling, Beauty and Health Care, and Pet Grooming.

(1) Cosmetics

Name of College:

- A. Department of Applied Cosmetology, National Tainan Junior College of Nursing
- B. Department of Cosmetic Application and Management, Mackay Junior College of Medicine, Nursing, and Management
- C. Department of Cosmetic Applications & Management, Cardinal Tien Junior College of Healthcare and Management
- D. Department of Cosmetic Applications and Management, Yuh-Ing Junior College of Health Care & Management
- E. Department of Cosmetic Application and Management, St. Mary's Junior College of Medicine, Nursing, and Management
- F. Department of Applied Cosmetology, Nanya Institute of Technology

Professional Course Contents: Professional Course Contents: Most colleges require students to obtain Level C license for beauty in the first year, Level C for Hairdressing in the second year, and Level C for chemistry in the third year. The first three years focus on the fundamental knowledge of cosmetics, cosmetology, and hairdressing, such as Introduction to Cosmetics, Cosmetic Chemistry, Practice of Skin Care, Cosmetology & Sanitation. The main courses of the fourth and fifth years include advanced cosmetics and overall styling courses to assist students obtain related Level B licenses, off-campus internships planning, management courses related to cosmetology and cosmetics to cultivate students' abilities on cosmetic techniques, sales, and management, and fashion hair styling skills for career planning after graduation.

(2) Cosmetology & Styling

Name of College:

- A. Department of Fashion & Cosmetology Design, Tungfang Design Institute
- B. Department of Fashion Beauty Design, Lan Yang Institute of Technology
- C. Department of Cosmetology and Fashion Design, Ching Kuo Institute of Management and Health
- D. Department of Cosmetology, Meiho University
- E. Department of Styling & Cosmetology, Tzu Hui Institute of Technology
- F. Department of Styling and Cosmetology, Hsin Sheng Junior College of Medical Care and Management

Professional Course Contents: The first three years focus on assist students obtain Level C licenses for beauty and hairdressing, such as chromatics, facial care and internship, skin care and internship, and cosmetology sanitation to establish students' fundamental competence. The courses for the fourth and fifth years include counseling for Level B licenses for beauty and hairdressing, advanced related competence, such as styling and cosmetology, cosmetology Industry marketing and management, off-campus internships, bridal styling, overall styling, fashion hair styling, graduation project production, marketing and management, store services, and beauty shop management to cultivate students' skills and competence on cosmetology, hairdressing, nail arts, store services, and management.

(3) Beauty & Health Care

Name of College:

- A. Department of Health and Beauty, Shu-Zen Junior College of Medicine and Management
- B. Department of Beauty & Health Care, Min-Hwei Junior College of Health Care Management
- C. Department of Cosmetics and Health Care, Chung-Jen Junior College of Nursing

Professional Course Contents: The courses include beauty and health care category and styling and cosmetology category with a focus of health care. The focus of the first three years is to assist students obtain Level C licenses for beauty and hairdressing with courses including skin physiology, disease prevention & health care, nutrition, nail arts, introduction to cosmetics, facial care, and skin care. The advanced courses in the fourth and fifth years are categorized based on the fields of styling and cosmetology and health care, such as aromatherapy, aroma essence oil formulization, eyelashes care, bridal secretary, and overall styling. The colleges also provide off-campus internships and store management courses to cultivate students' competence on the fields of beauty and health care and tourism leisure Industries.

(4) Pet Grooming

Name of College: Bachelor Degree Program in Pet Grooming, Chung Hwa University of Medical Technology

Professional Course Contents: The focus of the first three years is on the fundamental theories of pets, including introduction to the pet Industry, animal protection and pet Industry management acts, pet grooming tools, pet physiology, fundamental pet grooming skills. The advanced courses in the fourth and fifth years include pet Industry operation and management to equip students with competence needed for a pet-grooming career. These courses include financial analysis management, human resource management, service management, pet cosmetics inspection, aquarium landscaping techniques, and internships for the career planning after graduation.

The Enrollments of Five-Year Junior Colleges over the Years

The birth of the cosmetology departments in five-year junior colleges was because some junior colleges were upgraded to technological colleges or universities and the five-year junior colleges maintained the operation due to the enhanced educational level in the nation and the requirements for employments. The data provided by Directorate-General of Budget, Accounting and Statistics, Executive Yuan in January 2017 indicated that job seekers with junior college degrees or higher increased 133,000 or 2.41% (DGBAS, Executive Yuan, 2017) compared to the same month of last year. The data showed that the ratio of workforce with junior college or higher degrees has been increasing, indicating that the Industry has had a refined growth with significant needs on professional knowledge and techniques.

The enrollment data (Table 4) provided by Ministry of Education showed that the department titles were related to cosmetics more in the early stage because Executive Yuan listed cosmetic product Industry as "Challenge 2008: National Development Plan" in 2006 to cater to the prosperous development of the cosmetic Industry (Industrial Development Bureau, Ministry of Economic Affairs, 2006). Taiwan Institute of Economic Research stated that cosmetics sales was 11.057 billion dollars in 2007 with an annual growth rate of 3.2% compared to the global growth rate of 7%, twice more than GDP (Huang Xiaoling, 2009).

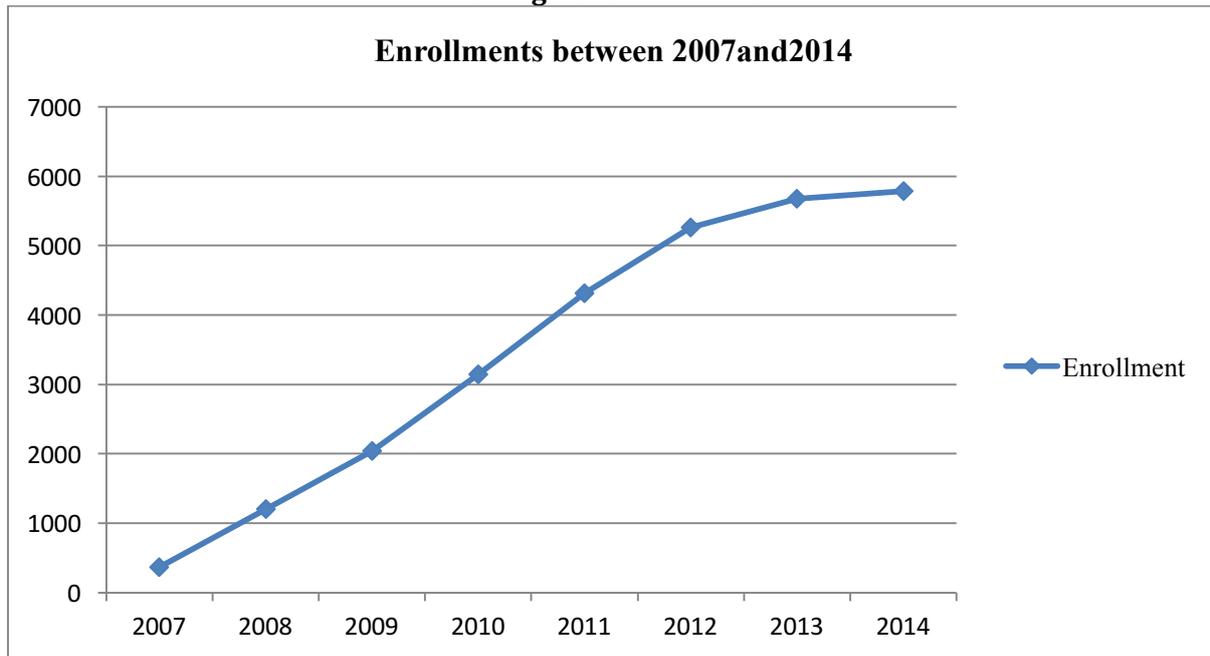
It has been more than ten years since the cosmetology related departments in five-year colleges first started. The growth curve (Fig. 2) based on the enrollment data provided by

Ministry of Education (2017) indicates the enrollments increased dramatically between 2007 and 2011 and maintained stable growth afterwards due to the increasing development of cosmetic related Industries, the education policies of expanding cosmetology related departments, and the increasing needs for workforce with junior college degrees, taking up 70% of the employment market (Ye Yihua, Ye Jinhua, & Chen Meijun, 2005). 104 Job Bank released the job openings on 3/1/2017: 11,846 openings for cosmetology, 2,449 openings for hairdressing, 1,096 openings for skin care, and 420 openings for nail arts (104 Job Bank, 2017). The data indicates that the enrollments of cosmetology related departments in five-year junior colleges over the years has a close relation to the development of the overall environment, educational policies, and the Industry.

Table3. Enrollments of Cosmetology Related Departments in Five-Year Junior Colleges over the Years

| Years | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|------|-------|-------|-------|-------|-------|-------|-------|
| Enrollments | | | | | | | | |
| Meiho University | 31 | 80 | 114 | 155 | 171 | 163 | 181 | 187 |
| Ching Kuo Institute of Management and Health | 0 | 42 | 90 | 132 | 177 | 213 | 200 | 211 |
| Tatung Institute of Technology (recruitment terminated for Department of Styling & Cosmetology in 2012) | 0 | 0 | 0 | 22 | 31 | 28 | 24 | 19 |
| Tzu Hui Institute of Technology | 48 | 110 | 143 | 196 | 294 | 341 | 385 | 396 |
| Hsin Sheng Junior College of Medical Care and Management | 0 | 44 | 139 | 241 | 324 | 408 | 453 | 442 |
| National Tainan Junior College of Nursing | 0 | 0 | 0 | 51 | 99 | 147 | 196 | 241 |
| Lan Yang Institute of Technology | 41 | 68 | 93 | 125 | 142 | 152 | 141 | 109 |
| Mackay Junior College of Medicine, Nursing, and Management | 0 | 0 | 46 | 105 | 207 | 326 | 433 | 477 |
| Cardinal Tien Junior College of Healthcare and Management (Cosmetics Applications & Management) | 39 | 82 | 132 | 192 | 288 | 466 | 545 | 656 |
| Cardinal Tien Junior College of Healthcare and Management (recruitment terminated for Department of Beauty & Health Care in 2012) | 0 | 167 | 214 | 319 | 359 | 327 | 217 | 130 |
| Yuh-Ing Junior College of Health Care & Management | 74 | 152 | 229 | 338 | 447 | 478 | 476 | 441 |
| St. Mary's Junior College of Medicine, Nursing, and Management | 49 | 139 | 247 | 349 | 440 | 476 | 468 | 447 |
| Shu-Zen Junior College of Medicine and Management | 0 | 0 | 0 | 0 | 101 | 233 | 357 | 473 |
| Min-Hwei Junior College of Health Care Management | 86 | 227 | 343 | 490 | 639 | 730 | 795 | 783 |
| Chung-Jen Junior College of Nursing | 0 | 44 | 131 | 215 | 322 | 408 | 454 | 469 |
| Tungfang Design Institute | 0 | 0 | 0 | 37 | 59 | 107 | 140 | 145 |
| Chungyu Institute of Technology (recruitment terminated for Department of Fashion Design in 2013) | 0 | 43 | 118 | 177 | 211 | 260 | 206 | 155 |
| Total Enrollments | 368 | 1,198 | 2,039 | 3,144 | 4,311 | 5,263 | 5,671 | 5,781 |
| Total Graduates | 0 | 0 | 0 | 0 | 0 | 265 | 500 | 658 |

Fig.2 The Growth Curve of Cosmetology Related Departments Enrollments in Five-Year Junior College over the Years



CONCLUSION

The official website of Ministry of Education quoted Clause 1 of Junior College Law, “the goal of junior colleges is to instruct and enhance applied science and techniques, cultivate employment competence, and nurture professional talents”. The goal of the cosmetology related departments in five-year junior colleges is to cultivate students’ techniques and competence needed for the future employment market. With the prosperous development of cosmetics, medical cosmetology, and beauty and hair styling markets in the nation, the job demands on cosmetology related has been increasing, which also create increasing demands of talents on cosmetics application management or fashion beauty hair styling (Wei Jiayi, 2010). As a result, the Industry’s need of talents influences educational development. Based on the enrollments growth curve (Fig. 1) of cosmetology related departments in five-year junior colleges provided by Ministry of Education in 2017, the enrollments between 2007 and 2011 increased dramatically.

The number of students indicates a sharp increase between year 2007 and year 2011, which also presents a stable growth in spite of the changes in the quantity of students after 2011. The industry development reveals that people now emphasize more on their external look and finishing following the development of economy and more frequent interpersonal interactions. Consequently, the development has led to the increase in industry demand for beauty, hair beauty, manicure, aesthetic medicine, and cosmetics. An international commercial survey company, Euromonitor, conducted a global business survey on 52 countries which account for 95% of the global GDP, and analyzes the cosmetics industry. It is estimated that Asia will become the world’s largest cosmetics market by the year 2013 (Lin, Pin-Ching, 2009). Moreover, Lin, Chin-Min and Chen, Chun-En (2009) state that the sales of cosmetics and skin care products in Taiwan are estimated to reach 2 billion US Dollars by the year 2008 and the market size for open-shelf cosmetics alone will reach approximately 2 billion New Taiwan Dollars, which currently grows at an annual rate between 15% and 20%.

There are sixteen colleges with cosmetology related in their five-year junior colleges by 2017. The titles of the departments catered to the current diverse development of cosmetology,

hairdressing, and cosmetics Industries and the increase of people's awareness of health care concepts. Six of the colleges used cosmetology related terms for the department titles: Department of Cosmetology, Department of Fashion and Beauty Design, Department of Fashion and Cosmetology Design, Department of Cosmetology Fashion Design, Department of Cosmetology Styling Design, and Department of Styling and Cosmetology. Six of the colleges used cosmetics related terms for the department titles: Department of Cosmetics Applications, Department of Cosmetic Applications and Management. Three of the colleges named Department of Beauty and Health Care. One of the colleges established a brand new department called Department of Pet Grooming, which went beyond the domain of human cosmetology. This new field was created due to the low birth rate, the development of pet care shops, and the increasing annual output value of pet grooming Industry, which inspired the development of various teaching features of cosmetology related departments in five-year junior colleges and provided junior high school graduates with more diverse and flexible options for pursuing higher education.

The decline birth rate in the recent years has strongly impacted higher education. Junior high school graduates are the student source for five-year junior colleges, whose first three years of learning overlaps with general high and vocational high schools and the fourth and fifth years of junior college students are eligible for transferring to general universities, technological universities, and institutes. Therefore, the cosmetology related departments in five-year junior colleges are energetically handling the issues of the reducing student source and losing students with the advantages of 12-Year National Fundamental Education and striving for continuous operation against all the competitors to build the features and teaching quality of "a straight ride to higher education and a clear path to employment" to create more student source (Hu Qianyu & Chang Guobao, 2013).

REFLECTION AND SUGGESTIONS FOR FUTURE RESEARCH

The following suggestions are proposed for researchers of future research and apply the reflections below:

1. The paper adopts literature review on qualitative research papers, which focuses on the analysis of cosmetics related departments at five-year technical and vocational junior colleges in Taiwan. With regards to the data collection for the research, the analogy between the content and results could not extensively cover other regions or countries and hence it is suggested that future researches should adopt the paper as a reference for basic structure, which will expand the issues in more discussion regarding the cosmetics related education for technical and vocational education in Asia. Moreover, the future studies are also recommended to consolidate and compare the development of cosmetics related fields in technical and vocational education in Asia or other countries.
2. The research process of the paper is based on literature review and it is suggested that the future researchers shall integrate their studies with quantitative research in terms of data collection. Future studies can also conduct census using quantitative tools and apply to students who have graduated from cosmetics related departments in the five-year junior colleges. Consequently, future researchers will understand the trends of advanced studies and the development of employment after the students have graduated with degrees from cosmetics related departments through the incubation of school curriculum offered, and thereby to expand the scope of data collection.
3. To enhance the pragmatism of the curriculum design for cosmetics related departments in five-year junior colleges and the boost the capacity to cope with changes in industries for the time being, it is suggested that future studies may expand the issues and research populations in the field of research. Qualitative research interview and

quantitative research can be applied with data collection, from the perspective of industry, government and academia, which can also be adopted for the integration of cosmetics and hair beauty related industries, educational officers in five-year junior college system, and the scholars in cosmetics education of five-year junior colleges. Consequently the study will enhance the analysis on data analogy of cosmetics related education and curriculum in five-year junior colleges.

The paper conducts data collection, prepares analysis and draws conclusion from the data extracted from the development of cosmetics related departments in five-year technical and vocational junior colleges through literature review. In particular, the development of the number of students and technical and vocational educational institutes in Taiwan reveals that the overall educational system in Taiwan shows an downward decreasing trends in low birth rate. For this reason, the management of cosmetics related education in five-year junior colleges is suggested to highlight the characteristics for schooling for the schools so as to build a solid foundation and stabilize its market share in the technical and vocational education. For issues related to cosmetics related departments in the five-year junior colleges, such issues still merit all enthusiasts in education with the collective and profound reflection on the review of such programs. In view of this, the paper sorts and compiles the research content in addition to acquire the reflection and enlightenment for cosmetics education in five-year junior colleges in the follows with the anticipation for future research to search for solutions:

1. The integration of cosmetics related departments in five-year junior colleges with relevant vocational and technical certification will provide explicit instructional and learning objectives for teachers and students from the department of cosmetics, which will also improve the educational performance of the schools:

In the development course of economies for cosmetics related industries, cosmetics related departments in technical and vocational education have long played a considerably important role with the burden of mission to incubate technical human resource for the industries. The basic objective of technical and vocational education aims to instruct students with occupational knowledge and cultivate them with occupational morals, in order to incubate sound and healthy talents who are desired by the industries of cosmetics, hair beauty and makeup. For this reason, the school curriculums are suggested to integrate the mechanism for technical and vocational reviews for current industry development, in order to provide trainings in the certification of professional skills, designed for occupations related to the cosmetics, hair beauty, hair cut for men, chemistry, and store services. On one hand, such certification system will add features of schooling to the schools while on the other hand, the system will enhance the students' competitive advantages in the future career planning and development.

2. Five-year junior college programs bear the mission and are projected to incubate technical human resource for the refinement of industries, in order to improve students' career capacity, to encourage the Ministry of Education to take actions in the implementation of off-campus hands-on curriculum for students, and to strength the practical skills in workplace for students:

Currently in Taiwan, the system is committed to promote off-campus hands-on curriculum for all technical and vocational education systems. To achieve the effectiveness of hands-on curriculum, all the stages of internship course should take precaution in the process. For example: (1)Pre-internship process includes the follows: adjustment for internship requirement, evaluation of internship institutes, announcement of internship opportunities, promotion for internship firms, resume submission, internship matching, internship insurance, and the

- educational training offered to internship systems; (2) Internship includes the follows: internship visits, workplace internship, counseling for internship (the handling mechanism in case of emergencies during internship, and the counseling, transfer and withdrawal mechanisms for inadequacies in internship); (3) Completion of internships (including before completion) – internship evaluation, internship satisfaction, internship outcome, and the presentation of report on knowledge and skills in students.
3. In midst of the low-birth rate issues in Taiwan, schools are recommended to sign agreement of the incubation programs for technical and art education with the education systems of junior high schools, in order to sustain the development and planning of cosmetics related departments among five-year junior colleges. The actions for strengthening the recruitment of students include the follows:
- The “Demographic Database” released by the Ministry of Interior (2016) reveals the changes of downward diminishing number of population birth, between the 260,350 people in 2001 and 208,440 people in 2016. Moreover, the number of married couples was decreased by 6,485 pairs and was relatively down by 378 pairs in divorced couples in 2016, which leads to the estimation that the birth rate for 2017 will be lower than that in 2016. In view of this and to cope with the low-birth rate issue for technical and vocational education in Taiwan, in addition to increase the number of students, technical and vocational education in Taiwan can collaborate with junior high school systems to organize the technical and vocational education curriculum for career exploration. Each semester, junior high school students will take training and competition in specialized school to complete the connection with technical and vocational education on one hand and promote the features for student recruitment for the school on the other hand.
4. The structure of curriculum content is closely integrated with the industry, which can be properly adjusted for department development and curriculum structure in view of the changes in industry structure and the requirement of the macro-environment, thereby promoting the schooling features of the school departments:
- To cope with the trends of refinement of relevant cosmetics industry, the cosmetics education system of five-year junior college that incubates intermediate-level of technical personnel becomes increasing important. Such system not only bears the burden of incubation the development of middle-class human resource but also the foundation to solid advanced technical and vocational education. In view of this, the curriculum content and structure of cosmetics education in five-year junior college should integrate closely with changes of industries to timely adjust the developmental development and curriculum structure, aiding curriculum development with full satisfaction of industries with maximum benefits in human resource requirement, teaching and student learning.

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