



Career Development and Licence Guidance for Culinary Students

Chen-Den Wu^a, Wei-Te Liu^b, ^{a,b}Graduate School of Technological and Vocational Education, YunTech University, Taiwan, Email: d10643005@yuntech.edu.tw, liuwt@yuntech.edu.tw

This study investigated the ego identity, career development and learning effectiveness of vocational culinary students, in the Taiwanese University of Science and Technology. The questionnaires were collected and scored using the Likert 5-point scale. The participants included 30 students in their C-level technician certification. The results were summarized as follows: 1. The participants' background was diverse, and the ratio of male to female was equivalent. 2. Participants who were hired because of their licence account for 90% (27 people) of the group. 3. Most students decided to attend school due to personal intentions. 4. Their evaluation of the training course was high. 5. Taiwanese students were more likely to explore information than foreign students. Further, as to individual learning and inner strengths, international students measured higher than the Taiwanese. The researchers suggest the following: 1. Establish a learning portfolio, and record the formative assessment of each unit in the process to promote learning outcomes. 2. Found the remedial teaching system to provide cross-disciplinary learning and offer foreign students guidance. 3. Set up mentoring and through the seniors' experience, properly arrange the apprenticeship system. 4. Introduce cooperative learning so that the group cooperates and completes tasks to enhance their learning motivation. 5. MOOCs course introduction: Effective transformation and retention of the training courses, to broaden the benefits of operating long-distance. Several recommendations were proposed in this study.

Key words: *Culinary students, ego identity, career development, training courses.*



Introduction

Research Motivation and Background

According to the “Cultural Importance Survey” of the “104 City Center”, 74% of people believe that having a licence is more important than obtaining academic qualifications (Hong Kunzhe, Xu Ziwei, 2008). It is apparent that future employment is based on one’s licence evincing one’s professional competence. According to the Vocational Training Council of Labour Board (2010), the "2010 Workplace Freshman Employment Survey" posed a question: "What efforts have you made to improve your competitiveness while searching for a job?" In this survey, 57.71% of participants thought that having a licence is key to greater opportunities.

For interdisciplinary students in the culinary field, obtaining a C-level technician certificate gives them affirmation, increased self-confidence, and enthusiasm in their studies. After graduation, they will enjoy increased employment opportunities and achieve a higher rate of employment success (Kang Mingzhong et al., 2010).

The motivation for this study was an observation during the culinary course. It was obvious that learners’ demands were not met, and the learning strategy and academic support was insufficient. In-depth research is necessary, especially considering that the student body represents both Taiwanese and foreign students, as well as those that have no prior culinary experience. It is clear that, without the necessary intervention, certain students face a greater struggle to meet the pass requirements. Further research is needed to investigate how students can receive more specific help in curriculum development, effective teaching, and student career planning.

Students’ interest in the Culinary Arts is on the rise. It is also a promising career path that parents think their children can follow. After graduation, they are able to enter a thriving job market. Culinary skills not only help to maintain personal livelihood, but it also increases the possibility of students' independence, helps students accumulate work strengths and possess a skill. The above-mentioned factors are all important in the consideration of a students’ ego identity, career development, licence guidance support, and learning satisfaction.

The Purpose of the Study

Based on the aforementioned research background, the motivations for conducting this research fall under three major aims: (1) The situation of students' cross-domain selection in different learning stages is increasing, and the delay of students' career development and exploration needs further exploration. (2) The value of self-regulation and career development



in the learning process needs attention. (3) In the skills training course, the learning dilemma and counselling needs of foreign and national students should be taken seriously.

The key research questions were aimed at: (1) Understanding the current situation of culinary students as it relates to self-regulation, career development and training. (2) Exploring the differences in the responses of the culinary students of different backgrounds, as to self-consolidation, career development, and training courses. (3) Explore the relationship between self-regulation, career development, and training course responses.

Literature Discussion

Ego Identity

Ying-Chyi Ho (1988) interprets self-conformity according to Erikson's theory: "After an individual enters adolescence, based on the development of mind and body and the needs of society, it is necessary to select, exclude or assimilate the image of identity from childhood, and re-establish a new one. The image is to solve the problem of 'who am I' and 'what kind of person I will be.' The process of integration is self-regulation."

1998 Zhang Shaowei: Adolescents are in the period of childhood and adulthood. Individuals undertake self-perception of interest, ability, attitude, and gender since childhood, and constantly choose to reject or accept certain beliefs, messages, and their abilities.

Scholar Chen Lisi (1983) studied college boys and girls and found that different levels of self-conformity did not significantly impact career choice and learning satisfaction.

Ego identity has a great impact, in the transition stage towards adulthood and the future.

Career Development

The employment of college graduates was reported on by the Youth Counselling Committee (2006). Of the graduates, 25% feel that their training did not efficiently prepare them for their job, and 45% think that their current occupation does not match their ideal career path. Another 42% said they realised that they chose the wrong field of study. Wu Wuzhong and Chen Huimei (2002) pointed out that the most difficult problems in the human resources department of the catering industry are mainly: the high turnover of employees, poor work attitude, and insufficient professional knowledge and skills.

Ying-Chyi Ho (1988) believes that college students go through a stage of psychosocial moratorium. Schools should provide a flexible and free learning environment, such as



opportunities to expand or transfer, special schools and further educational opportunities or channels to help students in career development (Jabarullah and Othman, 2019).

Certification, Verification and Guidance

This study refers to the certified examination for the C-level technical skills test in Chinese cuisine.

The functional training in this study focuses mainly on acquiring licences by completing informal courses. It is important training for the students in the culinary department. However, graduates feel that they lack practical training and that their culinary studies did not fully equip them for their jobs.

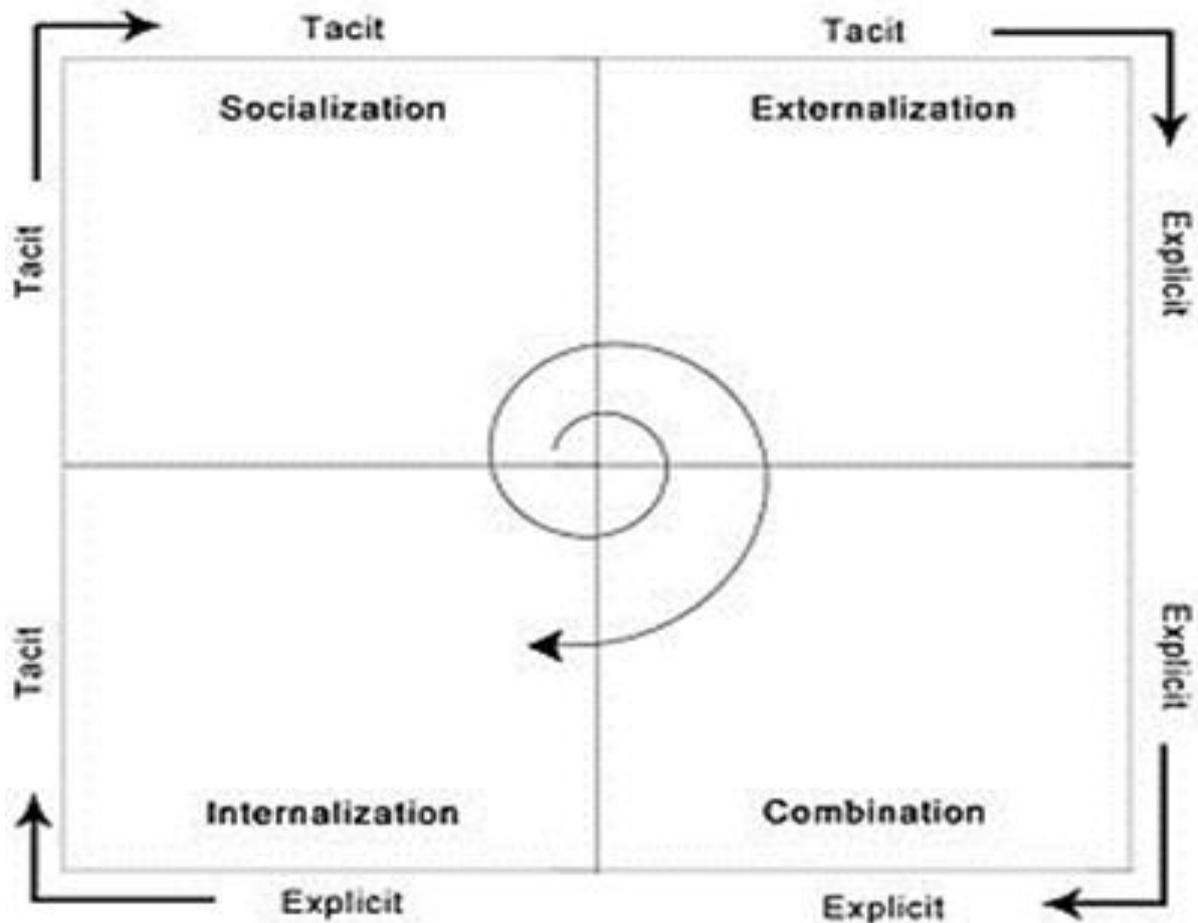
Chen Liwen (1998) conducted a comparative study on the performance of graduates of the Higher Vocational Restaurant Management and Non-Catering Management Sections. The former Higher Vocational Restaurant Management students showed better performance than the Non-Catering Management graduates. Professional training contributes to performance in the workplace. In addition to the performance of professional ability in job hunting, Qiu Wenren (2003) also pointed out that applicants with a professional licence earn extra points, and that their licence is also important in documenting their professionalism.

The actual number of students who took the examination was 34,507, and the number of students who passed the examination was 26,076 (Ministry of Labour 2018).

SECI Knowledge Transfer Theory

Through the SECI knowledge transfer model, we have a clear understanding of the process of skill learning. Therefore, the commonisation, externalisation, integration and implicit transformation in the training process represent the students' ability to engage in new knowledge.

Figure 1. The SECI model (Li and Goa, 2003)



After a semester of repeated practical practice under this model, students can operate independently in the kitchen and are ready for examination.

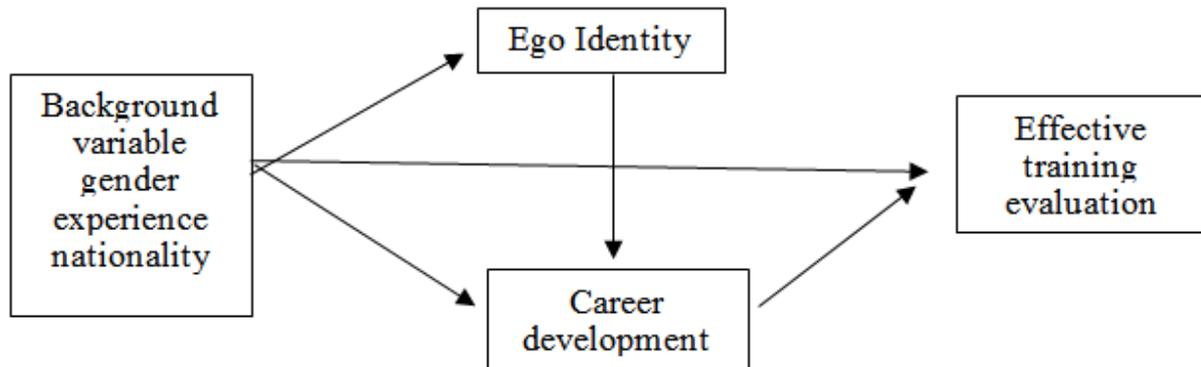
Students are encouraged to practice the operation process, and even to go home to cook for the family, to enjoy the learning effect. Apart from practical experience, students also experience an intrinsically valuable process in learning. Therefore, the guidance of the mentoring system and peer-to-peer relationship in the learning process is an important key to the success of learning. Appropriate assistance and support should also be provided for each learning need.

The practical operation and knowledge conversion process can be divided into the following: appliance inspection, cleaning equipment, food inspection, cleaning, cooking, cutting, and environmental cleanliness. The segmentation of knowledge transfer in the implementation of the curriculum is also an important course in learning.

Research Method

Research Framework

Figure 2. The Research Framework



The Research Hypothesis

H1-1: There are significant differences in the “ego identity” of the culinary students of different background variables.

H1-2: There is a significant difference in the "career development" of the culinary students of different background variables.

H1-3: There is a significant difference in the “training response” of culinary students with different background variables.

H2-1: "Ego identity" has a significant impact on "career development".

H2-2: "Ego identity" has a significant impact on the "training response".

H2-3: “Career development" has a significant impact on the "training response".

H3: "Background change", "ego identity", "career development" and "training response" have a significant impact on the students’ studies.

The Research Objective

This study was conducted on students from the Global Science and Technology Department. The sample consisted of 30 students who participated in the Chinese C-level certification training course.

Research Tools &Data Processing

This research tool mainly refers to the development of *the career development scale* of the research institute of Zhang Shaozhen (1998). It relates to the career development factors of vocational college students, the ego identity scale, and references to the revision of Wu



Xiaoping's (2017) related vocational training courses. Based on the needs of this research, the design of personal background data items was developed and distributed by questionnaire. In total 30 questionnaires were distributed, 30 were collected, and 30 valid questionnaires were issued.

The following measurement tools were used: Zhang Shaozhen's (1998) career development scale, the ego identity scale, and Wu Xiaoping (2017), for the relevant training courses for students to learn the response and effectiveness questionnaire. The following shows the research reliability and validity:

Table 1: Research reliability and validity

	Questions	Cronbach's Alpha
Career development scale	35	.748
Ego identity scale	8	.431
Training courses effectiveness questionnaire	27	.971

After the questionnaire was collected, statistical analysis of the quantitative data was performed using SPSS version 20.0. To verify the research hypotheses, the data analysis methods included descriptive statistics, t-tests, and single-factor variance analysis.

Results and Discussion

The purpose of this study is to analyse and discuss the "background change", "ego identity", "career development" and "training response" of first-year students in the Culinary Arts Department of the Case School, to provide a reference for students' career planning. The data will be evaluated and the results will be explained.

Descriptive Statistical Analysis of Questionnaire Data

Description

(1) Background Variables

The gender ratio is 50% for men and women, 17 for catering related subjects, and 13 for non-food and beverage related graduates (43%), including 23 Taiwanese students and seven foreign students (who are mainly Malaysian). In investigating prior cooking experience: seven students had no cooking experience, 13 students cooked occasionally, and 10 students cooked regularly. Five students thought that teaching support is unnecessary, whilst the 25 other students thought that support is vital. One-fifth of the subjects' families is engaged in catering-related industries (accounting for six people), 90% (27) will be employed after obtaining professional licenses, and another 10% (three people) will be unemployed.

(2) Ego Identity

The average score for the average single question specified by the parents is the lowest (1.90), and the average score for the single question determined by the individual is the highest (3.45). The exploration factors of the ego identity scale facet are (3.03), the commitment factor (2.64), and the overall average (2.84). This indicates that the subjects' choice and decision-making power for the selection of the culinary department derive mostly from personal intentions.

Table 2: Descriptive statistics of each gauge surface

Ego Identity	M	SD
Exploration factor	3.03	.50
Commitment factor	2.64	.69
Total	2.84	.54
Career development		
Hard work environment	3.29	.66
Exploration information	3.45	.75
Correct choice	3.86	.65
Personal learning	2.26	.87
Realistic consideration	2.26	.75
Not sure	2.69	.88
Weak will	2.86	.97
Total	2.95	.33
Training course response		
Teacher teaching feedback	4.25	.63
Student learning experience	4.23	.57
Training course effectiveness	4.15	.62
Total	4.21	.56

(3) Career Development

The average score of the single question in question 6 is the lowest (1.97), and the average score of the twenty-first question is the highest (4.20). It shows that for the choice of career development, students have obtained a higher degree of satisfaction with their intention to choose the culinary field, and did not give up personal preferences. The field is conquered, and it is easy to say that it is a phenomenon in the field of career development that has been misclassified. In terms of the average number of career development facets, the total career balance is (2.95). Other facets are effort environment (3.29), exploration information (3.45), correct choice (3.86), personal study (2.26), and reality. Considerations (2.26), uncertain (2.69), weak will (2.86).

(4) Course Experience

The average number of single questions is presented. The average score of the twenty-second question [the course is helpful for establishing relationships with customers] is the lowest (3.87), and the fifteenth question [the course has practical value] has the highest average score (4.43). In addition, sub-items in the questionnaire scored the following: students' perception of teachers' teaching (4.25), students' perception of course learning (4.23), the effectiveness of evaluation (4.15), and the overall satisfaction with the training course (4.21).

Independent Sample T-test Analysis of Ego Identity

(1) Analysis of Ego Identity in Culinary Students of Different Background Variables

After independent sample t-test analysis of both genders, significant differences were found in the students' learning background for higher vocational catering related subjects, and ego identity analysis of both Taiwanese and foreign students.

Table 3: Analysis of Ego identity

	Gender	Background of catering	Nationality
Exploration factor	F=.21 t=.58 p=.56	F=.67 t=.04 p=.97	F=.52 t=.16 p=.86
Commitment factor	F=.08 t=.00 p=1	F=2.99 t=.55 p=.59	F=.05 t=.10 p=.93
Total	F=.03 t=.27 p=.79	F=1.81 t=.34 p=.74	F=.75 t=.01 p=.99

* $p < .05$

(2) Analysis of "career development" in students of the culinary arts with different background variables

The career development scale was used as follows. The independent sample t-test analyses differences in gender, whether there is a learning background related to subjects of higher vocational catering, and the comparison of students of Taiwanese or foreign nationality. Findings show that significant differences lie in the following three factors: exploration factors, personal learning factors, and weak will. Taiwanese students are more likely to explore information factors (3.63) than international students (2.86), while international students score higher than Taiwanese students as to individual learning facets (2.03<3.00) and weaker facets (2.57<3.80).

Table 4: Analysis of career development

	Gender	Background of catering	Nationality
Hard work environment	F=.00 t=-.38 p=.71	F=.81 t=.51 p=.61	F=2.05 t=-1.18 p=.25
Exploration information	F=1.38 t=.24 p=.81	F=.17 t=.00 p=.10	F=.01 t=2.59 p=.02 * (① > ②)
Correct choice	F=1.15 t=.28 p=.79	F=4.34 t=1.74 p=.09	F=3.36 t=1.96 p=.06
Personal learning	F=.81 t=.12 p=.90	F=.87 t=.75 p=.46	F=1.02 t=-2.87 p=.01 * (② > ①)
Realistic consideration	F=2.83 t=-.53 p=.60	F=.74 t=-.01 p=.99	F=.18 t=-.10 p=.92
Not sure	F=.01 t=-.66 p=.52	F=.01 t=-.66 p=.52	F=.67 t=-.86 p=.40
Weak will	F=.06 t=-.04 p=.97	F=2.11 t=.75 p=.46	F=4.86 t=-2.63 P=.03 * (② > ①)
Total	F=.01 t=-.34 p=.74	F=.37 t=.95 p=.35	F=4.45 t=-1.61 p=.12

* p < .05

(3) Analysis of "Training Response" of Culinary Students in Different Background Variables
In "training response" analysis, the independent sample t-test analyses differences in gender, whether students have a learning background of catering-related subjects, and nationality differences. No significant differences can be found in the students' perception of the teacher's teaching, the perception of course learning, and the overall effect of learning.

Table 5: Analysis of Training Response

	Gender	Background of catering	Nationality
Teacher teaching feedback	F=.33 t=-.39 p=.70	F=2.22 t=.48 p=.64	F=3.27 t=.15 p=.88
Student learning experience	F=1.10 t=-.58 p=.57	F=1.99 t=-.13 p=.90	F=2.72 t=.07 p=.95
Training course effectiveness	F=1.20 t=-.97 p=.34	F=1.22 t=-.33 p=.75	F=.09 t=1.09 p=.29
Total	F=.14 t=-.70 p=.49	F=4.14 t=.01 p=.99	F=1.24 t=.47 P=.64

* p < .05



Learning Coaching Needs Discussion

According to the above research results, there was no significant difference in the perception of self-regulation and training courses among different background variables. However, significant differences were found in the exploration of career development, personal learning, and weak will. The overall data analysis reflects some important information that should be considered when students participate in training courses, as well as the value of learning counselling.

These include: (1) the equal proportion of students in the test, indicating that they have equal opportunities to learn professional cooking. (2) Students having no prior cooking experience or experience in catering related fields of study. (3) International students whose heterogeneity and diversification may bring more complexity of learning needs. (4) In terms of training needs, the teaching methods used by teachers are appropriate, but in practical operations, it is considered that teaching assistance is crucial. (5) Participants in the training course give high praise to the design and implementation of teaching courses, individual learning and the evaluation of the effectiveness of future employment career development. (6) It is worth noting that although the students are studying in the field of cooking, not everyone intends following this profession. Only 90% of the students will be invested in a culinary future. Some may move to a different sector such as administration or the food and beverage industry.

Conclusion

- (1) Culinary studies have become increasingly popular. Practical assistance is imperative and the abovementioned diversity in learner background is an area of great consideration.
- (2) With 90% of students investing in a future in the culinary field, teaching and learning proficiency, as well as effective evaluation has been highly rated in the teaching, learning and effectiveness evaluation of the training courses.
- (3) A high level of ego identity, career planning, and training satisfaction are positively related to learning outcomes.
- (4) The study shows no significant differences in the perceptions of ego identity and training courses among subjects with different background variables. However, in the area of exploring career development, personal learning, and weak will, significant differences are evident.

Recommendations

The researchers suggested the following as to the feasibility of the training course:

- (1) Establish a learning portfolio, record the formative assessment of each unit in the process to promote the learning outcomes.



- (2) Found the remedial teaching system to provide cross-disciplinary learning and offer foreign students academic support.
- (3) Set up a mentoring system through the experience of seniors, properly arrange the apprenticeship system.
- (4) Introduce the cooperative learning method, where groups cooperate to complete the tasks and enhance the motivation to learn.
- (5) Introduce Massive Open Online Courses (MOOCs) to support the effective transformation and retention of the training courses, to broaden the benefits of long-distance. Several recommendations were proposed in this study.



REFERENCES

- Cai, Q. (2016). From "cooking" to "cooking": The future of French cuisine. *Chinese Food Culture*, 12 (2), 135-172.
- Chen, G. and Hong, W. (2011). Research on the development of careers of different generations of Taiwanese chefs. *Dining and Sightseeing*, 8 (3), 167-189. Doi:10.6572/JHT.8(3).1
- Chen, J. and Lin, Y. (2015). The positive and negative functions of the mentoring relationship and the consequences and consequences - taking the meal intern as an example. *Dining and Sightseeing*, 12 (1), 1-21. Doi:10.6572/JHT.12(4).1
- Chen, M. (2012). The research on the career assessment of college students in the catering management department. *Far Eastern Journal of General Studies*, 6(2), 21-39. Doi:10.6795/JFEUGE.201207.0021
- Chen, Y. and Xu, Y. (2011). Re-examine the influencing factors of gender segregation in higher education departments: the comparison between technical and academic orientation education. *Taiwan Journal of Social Studies*, (48), 151-199. Doi:10.6786/TJS.201112.0156
- Cherng, Y.J. & Lin, H.H. (2006). The required employability skills for the western culinary art graduates. *Hospitality and Home Economics Journal*, 3(2), 205-219. doi:10.6572/JHHE.3(2). 4
- Hodgson, J. W. & Fisher, J. L. (1979). Sex difference in identity and intimacy development in college Youth. *J. of Youth Adoles*, 8(1), 37-50.
- Jabarullah, N.H. & Othman, R. (2019). Steam reforming of shale gas over Al₂O₃ supported Ni-Cu nano-catalysts, *Petroleum Science and Technology*, 37 (4), 386 – 389.
- Li, M. and Gao, F. (2003) Why Nonaka highlights tacit knowledge: a critical review, *Journal of Knowledge Management*, 7 (4), 6-14.
- Li-Chou, C. (1983). A comparative study of self-conformity and career choice, learning satisfaction and parenting styles of college boys and girls. *Journal of Educational Psychology*, (16), 89-98. Doi:10.6251/BEP.19831201.7
- Liu, C. and Wu, J. (2017). Exploring the influencing factors of the catering management students' intention to continue the course after completing the certification digital course. *Dining and Sightseeing*, 14 (1), 19-35. Doi:10.6572/JHT.201703_14(1).0002



- Siqian, (2005). A preliminary study on the reform of higher vocational education. *Journal of Culinary Journal of Yangzhou University*, 22(3), 9-11.
- Shao. W. (2015). Nanjing Tourism Vocational College, Nanjing Tourism Vocational College, Nanjing, Jiangsu, 211100 (2015). A comparative study of curriculum reform and design for culinary specialty programs. *Journal of Sichuan Tourism College*, 2015 (01), 70-73, 77.
- Wu, W., Du, M., and Zou, A. (2013). Transforming professional functions into work output: a performance perspective. *Dining and Sightseeing*, 10 (1), 27-46. Doi:10.6572/JHT.10(1).2
- Wu, S., Wu, J., Chen, L. and Xu, X. (2015). The study of the differences in the development of culinary creativity between chefs with different learning backgrounds. *Chinese food culture*, 11 (2), 111-146.
- Xu, M. (2007). Taiwanese teachers and chefs surveyed and analyzed the meaning of Chinese food cooking technicians. *Food and Tourism and Home Economics Journal*, 4 (4), 315-332. Doi:10.6572/JHHE.4(4).1
- Ying-Chyi, H. (1988). College Students' Sense of Responsibility and Ego Identity: An Ethical Analysis of Erikson's Ego Identity of Youth. *Journal of Educational Psychology*; (21), 77-98. Doi:10.6251/BEP.19880601.5
- Zhu, D. (2005). Thoughts on the development of cooking education in higher vocational schools. *Journal of Culinary Journal, Yangzhou University*, 22(4), 28-31.