***Short Research Article***

# A Study on the Learning Motivation and Learning Attitude of Cosmetology Students in Vocational High Schools in Taiwan


## ABSTRACT

This purpose of this study is to investigate the learning motivation and attitudes of cosmetology students in vocational high schools in Taiwan. By using literature review and questionnaire surveys, this study has found the following:

The research shows that cosmetology students that decide to further their studies emphasize “Learning Values” while students preparing for employment focus on “Performance Goals”. The female students are more focused on “course learning attitude” than the male students. Students in the high and intermediate academic grade categories value “environment learning attitude” more than students in the lower grade category.

In the cosmetology curriculum, learning motivation and learning attitude show a positive correlation since learning values, performance goals, self-efficacy, and curriculum acceptance, all of which make up learning motivation, will have a positive and significant influence on students’ course learning and environment learning attitudes.



*Keywords: Learning value; performance goal; self-efficacy; curriculum acceptance; course learning; learning environment.*


## 1. INTRODUCTION

Due to the rapid improvement of technology and elevation of living standards in Taiwan in recent years, more have come to value the importance of cosmetology education and image sculpting, leading to the rapid development of the beauty industries. The cosmetology courses in Taiwan vocational high schools today have shifted from the training of base level professional technicians for employment as in the past to the development of students for further studies or developing students in the management and services of cosmetic industries and sectors.

Students seek employment in the cosmetology and hairstyling sectors after graduation, such as makeup artists, skincare and body-slimming industries, beauty salon assistants, styling or wedding photography personnel. As the technical and vocational education in Taiwan is available from high school levels to university and post graduate levels, cosmetology students can enjoy smooth academic advancement while many vocational institutions have established cosmetology faculties to ensure the learning of cosmetology education will become more active and diverse in line with the latest trends and industry changes.

Exploring the learning motivation and learning attitude of cosmetology students in vocational high schools allows the schools to focus on the educational objectives, educational environment, teaching resources, methods, equipment and the effectiveness of learning so that the schools will not deviate from the original goals of establishing vocational educational. As cosmetology is also a part of the vocational education, its primary objective is to equip the students with the professional knowledge and skills in domains such as beauty care and hairstyling so as to meet the demands of the beauty and hairstyling industries.

Learning motivation refers to the psychological processes of the students throughout the learning activities. It is the source of motivation that inspires the students to take the initiative to devote efforts to the learning process in the learning activities. Learning attitude refers to the motivation and interest of the students in the subjects, followed by the attitude towards the learning environment, or the variance in environment, such as the teaching attitude of the instructor, and the interpersonal relationships between peers, which will form the subjective opinions of the students.

While exploring the learning motive, behavior, and the effectiveness of cosmetology students in Taipei vocational high schools, Wu (2005) found that the cosmetology students had exhibited positive acknowledgement and trend in “Learning motive”, “Learning behavior”, and “Learning outcome” of their professional courses. Learning motive can offer a prediction of the learning outcomes. Difference in gender, age, family education and attitude, values and social experiences will contribute to significant differences in the ~~the~~ aspect of “Learning motive” [1]. In addition, Kuo (2010) conducted a survey on hairdressing students in vocational high schools to analyze the satisfaction level of the students. Results showed that factors affecting the satisfaction level of learning include five aspects, “Teachers and course materials”, “Learning motives”, “Learning environment”, “School administration”, and “Interpersonal relationships”, proving that learning motive is one of the factors affecting the learning satisfaction of students[2].

The technical and vocational education is focused primarily on the development of vocational education and the training of professional researchers and administrative talents. As such, through the study of the correlation between learning motivation and learning attitude of the cosmetology students in vocational high schools in Taiwan, this study shall explore and understand the current learning conditions of the cosmetology students in vocational high schools to provide an effective reference for the revision and improvement of education courses. ~~through~~Through the study of the correlation between learning motivation and learning attitude of the cosmetology students in vocational high schools, this study shall explore and understand the current learning conditions of the cosmetology students in vocational high schools to provide an effective reference for the revision and improvement of education courses.

## 2.LITERATURE REVIEW

### 2.1 Definition and Theory of Learning Motivation

Adams proposed in 1963, that learning motive can be used to predict the effectiveness of learning, as well as a form of inner psychological process that maintains the individual activities and guides the individual to strive towards the set ~~objectives~~[objectives [3]. Ball (1990) believed that in educational psychology, motivation is an important deciding factor in learning processes. In the absence of learning motivations, learning will not ~~commence~~[commence [4]. Local researcher Zhang (1994) believed that motivation is an intrinsic psychological process that inspires and maintains the actions of individuals and guides the individual towards set ~~targets~~[targets [5]. Thus, learning motive is a psychological process that individual learning activities and a driving force for improvement.

Boshier and Riddel believe that learning motivations can be classified as social contact, social stimuli, career development, social services, external expectations and cognitive interests[6]. Binner & Dean & Millinger (1994) believe that while a high degree of gratification does not necessarily require high motivation, a low degree of gratification is mostly due to a low degree of ~~motivation~~[motivation [7]. Liao (2004) believed that learning motivation is the psychological process that influences the learner to take the initiative in maintaining the learning activity in objective and cognitive learning activities and guides their learning towards the set ~~objectives~~[objectives [8].

Based on the above, this study concludes that learning motivation is an integral factor of learning. Without learning motivation, the learning will not be able to be sustained. With a good learning motivation, good learning results can be achieved. The author defines learning motivation as an inherent tendency that strengthens learning activities and guides the learning towards the established objectives during the learning process of the individual.

Based on the definitions and aspects analyzed in the aforementioned literature reviews, the interpretation of learning motivation by this study is as follows: Learning motivation refers to the psychological process that maintains the learning activity of cosmetology students in vocational colleges and it is the driving factor that will inspire the students to take the initiative to devote efforts in maintaining the learning process; hence the learning motivation can be classified into four domains:

1. Learning Value: Refers to the degree of biological or psychological gratification of the students during the learning of the cosmetology ~~curriculum~~[curriculum [5,6]. It is a standard for measuring the belief or learning, and includes the practicality of the course, importance, degree of interest, and degree of attraction.

2. Performance Goal: Refers to the student performance in the professional cosmetology courses, which aims to present the academic achievements or ~~successes~~[successes [4,6].

3. Self-Efficacy: Refers to the positive perception and faith of the students in their learning capabilities that they can master the course with continued effort in the face of challenges or pressure during the professional cosmetology ~~courses~~[courses [8].

4. Curriculum Acceptance: When attending the professional cosmetology courses, the students are able to accept the difficulty of the courses, will consult the correct operation methods to complete their assignments, and have confidence in achieving good grades[7,8].

## 2.2 Definition and Theory of Learning Attitude

Learning attitude is an intrinsic psychological phenomenon, as well as a behavioral tendency that holds a certain influence over behaviors. In the psychological theories and researches, Marzano (1992) previously summarized that learning attitude is influenced by environmental factors instead of inherent genetic factors, so it possesses variance and academic education can adopt appropriate guidance measures to develop proactive learning attitudes in ~~students~~[students [9].

In Howard and Maxwell's research in 1982, the study described that learning motive can predict student satisfaction of the instructors' teaching, and also affect the learning attitude of the students [10]. Zhang (1994) proposed that learning attitude includes learning methods and learning habits, such as reading, taking notes, memory, preparation, problem-solving, and time management. Good learning attitude can improve learning efficiency and increase the academic ~~achievements~~[achievements [5]. Huang (2002) summarized learning attitude into four aspects: Attitude towards Course, Use of Learning Methods, Attitude towards Learning Activity, Attitude towards Learning ~~Environment~~[Environment [11]. In 2003, Harlen and Crick proposed that learning motive is the main factor affecting learning satisfaction. The stronger learning motive, the higher the learning satisfaction will ~~be~~[be [12]. ~~^~~.

Based on the above, learning attitude refers to the cognitive and emotional factors of the students towards the learning contents, and includes the usage habits of learning methods, opinions on the school teaching and environment, and opinions on the academic studies which are environmental factors of the ~~students.This~~students. This study defines learning attitude as: The psychological condition and objective and subjective evaluation of cosmetology students on the surrounding people, events and things related to cosmetology courses, such as the teaching attitude of instructors, interpersonal relationships between peers, and the opinions formed after the interaction in learning situations.

Weinstenin (1982) classifies learning attitude as the following aspects: learning motivation, time management, information handling, learning method, self-examination, test techniques, etc[13].In the research on the learning attitude and career inclination of practical skills program students in vocational high school, Li (2009) classified learning attitude into four aspects: learning anxiety, learning interests, learning habits, and usefulness[14].

Based on the discussion of the integration of learning attitude in the literature reviews above, two aspects can be summarized as: A) Attitude towards Course Learning: Refers to the motivation and interest of students in course contents; B) Attitude towards Learning Environment, or surrounding environment [10], such as the teaching attitude of the instructor, and the interpersonal relationships between peers, which will form the subjective opinions of the ~~students~~[students [15].

Based on the above, learning motive will affect learning satisfaction and learning attitude. In Taiwan, most students opting cosmetology studies are interested in obtaining the relevant professional knowledge and skills, mainly because they hope to learn an unique skill that may allow them to secure a job in the cosmetology industry when they graduate. As such, exploring the learning motive and learning attitude of students will be beneficial to the classroom teaching of instructors by allowing them to develop good learning attitudes and spirit, and guide the career development of students.

# 3.METHODS

The personal background variables used in this study include items, such as gender, career planning, and academic grades. Learning motivations include four aspects of "learning values, performance goal, self-efficacy, and curriculum acceptance". The Learning attitude ~~includes two~~includes two aspects. ~~course~~Course learning attitude and environment learning attitude, as shown in *Figure* 1.

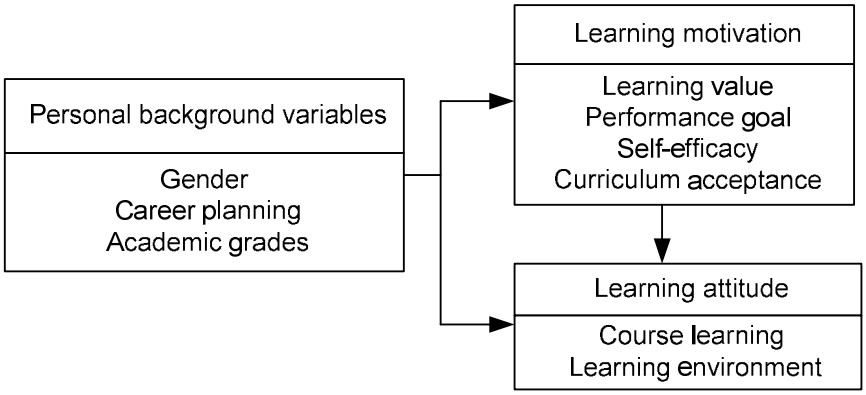



*Figure*1：Framework

This study is conducted on a group of third year cosmetology students in vocational high schools in Taiwan from January 1st till March 24th 2016. Conducted in the form of convenience sampling, a total of 900 questionnaire surveys were distributed and 783 responses were collected, achieving a response rate of 87.0% .To explore if the gender, career planning and academic grades of the cosmetology students in vocational high schools will cause significant differences in the learning motivations and learning motivations , this study will explore the relativity between learning motivations and learning motivations, as illustrated in Figure 1 of research structure.

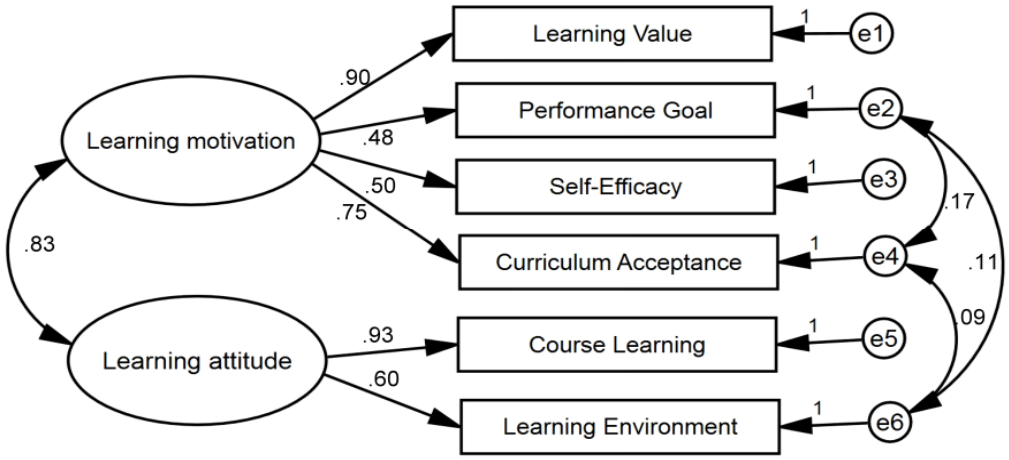
For the learning motivation scale, this study has consulted the “Student Scientific Motivation Scale” designed by Lin (2011) and made amendments to the scale for use as the measurement scale of the motivation of cosmetology ~~students~~[students [19]. The scale includes a total of 16 items from four potential variables which are learning values, performance goal, self-efficacy, and curriculum acceptance. as shown in figure 1：framework.

For the learning attitude scale, this study has consulted the scale designed by Li (2009) and made amendments to the scale for use as the learning attitude scale[9]. In order to meet the needs of this ~~study~~[study [14], the scale includes a total of 11 items from two potential variables which are course learning attitude and environment learning attitude.

Construct Validity: Construct validity was examined using factor analysis. The factor load of learning motivation scale is within the range of 0.632 and 0.910, which explained for the variance of 75.872%. The factor load of learning attitude scale is within the range of 0.788 and 0.853, which explained the variance of 62.806%.

Reliability Test: Cronbach’s α coefficient is used to analyze the internal consistency of the test items. According to the 0.7 reliability coefficient standard proposed by Hair et al., (1998) the item-to-total correlations must be larger than 0.5 to be deemed accurate and conform to the standards of reliability and acceptance[17,18]. The results show that the α value of the scales are 0.905 and 0.813 while the correlations of the separate items to total fall within the range of 0.507 and 0.783, which proves the internal consistency of the items.

After collecting the survey responses, the SPSS for Window 20.0 version (IBM SPSS, New York, NY, USA) statistical software was used to conduct information analysis with the α significance value set at α=0.05. In order to construct a stable and efficient model, this study has utilized the AMOS version 20.0 to conduct confirmatory factor analysis for the two-factor model relevance. as shown in *Figure* 2.




Standardized estimates

Chi-square=5.16 (df = 5) p = 0.39（p>.05）

*Figure* 2: Confirmatory Factor Analysis Model Schematic

As shown in *Figure* 2, construct validity was examined using confirmatory factor analysis (CFA). The results of the CFA showed that for the proposed model, $X^2$ = 5.16, df = 5, p = 0.39, CMIN/DF = 1.03, RMR= 0.05, RMSEA= 0.06, NFI=0.99, IFI= 0.99, TLI= 0.98, GFI= 0.99, CFI =0.98. The above estimates have reached significance levels. As the factor load is within the range of 0.48 and 0.93, the error variance values are positive and significant, which shows that the observed variables can fully present the potential variables.

## 4. RESULTS AND DISCUSSION

This study conducted surveys on a total of 783 students, with the majority being female students accounting for 92.0% (*n*＝720) while male students accounted for 8.0% (*n*＝63). In terms of career planning, students who choose to further their studies accounted for 65.0% (n＝509) while students who choose employment accounted for 25.6% (n＝200) and others accounted for 9.4% (n＝74). In terms of academic results, the majority of the students scored in the 70~80 range, accounting for 54.0% (n＝422, mean＝75.16, SD±3.81), students in the 80~100 range accounted for 25.0% (n＝196), and students in the 60~70 range accounted for 21.0% (n＝165).

The analysis of variance of the demographic variables in learning motivation and learning attitude was conducted using the Independent *T-test* and the *One-Way ANOVA* to explore if the demographics of the cosmetology students in Taiwan vocational high schools will affect the learning motivation and learning attitude. The results of the analysis are as follows in Table1 and Table2:

Table 1: Analysis of Variance of Demographic Variables in Learning Motivation

| Variable | *n* | Learning Values | Performance Goal | Self-Efficacy | Curriculum Acceptance |
|---|---|---|---|---|---|
| | | Mean±SD | Mean±SD | Mean±SD | Mean±SD |
| Gender | | | | | |
| (1) Female | 720 | 21.78±3.75 | 14.91±3.02 | 9.87±1.53 | 9.32±1.89 |
| (2) Male | 63 | 23.17±4.74 | 11.67±4.45 | 11.56±2.23 | 11.23±2.36 |
| *t value (p)* | | (1) >(2) | (2) >(1) | (2) >(1) | (2) >(1) |
| Career Planning | | | | | |
| (1) Further Studies | 509 | 23.65±3.89 | 13.08±3.07 | 10.36±1.65 | 10.58±1.25 |
| (2) Employment | 200 | 20.21±2.69 | 14.21±3.12 | 10.05±1.37 | 10.37±1.64 |
| (3) Others (Part-time) | 74 | 19.31±2.82 | 12.67±2.32 | 10.23±1.39 | 10.23±1.39 |
| *F value (p)* | | (1) >(2)； | (2) >(3) | | |

| | | | | | |
|---|---|---|---|---|---|
| | | (1) >(3) | | | |
| Academic Grades | | | | | |
| (1)High Grade Category | 196 | 23.12±3.52 | 13.65±3.64 | 10.98±1.85 | 11.38±1.36 |
| (2)Intermediate Grade Category | 422 | 20.25±3.02 | 13.98±2.96 | 10.95±1.19 | 11.20±1.47 |
| (3)Low Grade Category | 165 | 19.13±2.89 | 13.02±2.97 | 9.21±1.23 | 11.09±1.31 |
| *F value (p)* | | (1) >(3) | | (1) >(2)<br>(2) >(3) | |

*$P$< .05，**$P$<.01，***$P$<.001

The learning values, performance goal, self-efficacy, and curriculum acceptance aspects in learning motivation have reached significant variance. Through the t-test analysis, it is found that female students emphasize more on the aspect of “learning values” than male students whereas the male students place more emphasis on the “performance goal, self-efficacy, and curriculum acceptance” aspects.

The self-efficacy and curriculum acceptance aspects in learning motivation have not reached significant variance whereas the aspects of learning values and performance goal have reached significant variance. Through comparison using the *Scheffé's* method, students who choose to further their studies value the aspect of “learning values” more than students who choose employment paths or work part-time. Students who seek full-time employment value the aspect of “performance goal” more than their counterparts who seek part-time jobs. The findings are consistent with the results of previous studies in high school on self-efficacy and curriculum acceptance in Taiwan [11].

The performance goal and curriculum acceptance aspects in learning motivation have not reached significant variance whereas the learning values and self-efficacy aspects have reached significant variance. Through analysis using the *Scheffé's* method, students in the high grade category place more emphasis on the aspect learning values than students in the low grade category. In addition, students in the high grade and intermediate grade categories also emphasize more on the self-efficacy aspect than students in the low grade category. The findings are consistent with the results of previous studies in high school on performance goal and curriculum acceptance in Taiwan [11].

Table 2: Analysis of variance of demographic variables in learning attitude

| Variable | *n* | Course learning attitude | Environment learning attitude |
|---|---|---|---|
| | | Mean±SD | Mean±SD |
| Gender | | | |
| (1) Female | 720 | 22.36±4.09 | 19.12±2.21 |
| (2) Male | 63 | 20.12±3.45 | 19.35±2.35 |
| *t value (p)* | | (1)＞(2) | |
| Career Planning | | | |
| (1) Further Studies | 509 | 22.19±3.69 | 18.23±2.17 |
| (2) Employment | 200 | 23.57±3.45 | 16.49±2.03 |
| (3) Others (Part-time) | 74 | 21.37±3.15 | 17.69±2.34 |
| *F value (p)* | | | (1)＞(2) |
| Academic Grades | | | |
| (1)High Grade Category | 196 | 21.12±3.59 | 18.65±2.64 |
| (2)Intermediate Grade Category | 422 | 23.25±3.26 | 18.98±2.96 |
| (3)Low Grade Category | 165 | 19.13±2.35 | 15.02±2.13 |
| *F value (p)* | | (2)＞(3) | (1)＞(3)； (2)＞(3) |

*$P$< .05，**$P$<.01，***$P$<.001

The course learning attitude aspect in learning attitude has reached significant variance. Through the t-test analysis, it is found that female students emphasize more on the aspect of “course learning attitude” than male students.

The course learning attitude aspect in learning attitude has not reached significance variance while the environment learning attitude aspect has reached significant variance. Through comparison using the *Scheffé's* method, students who choose to further their studies are found to place more emphasis on the aspect of “environment learning attitude” than students who choose employment or part-time jobs. The

findings are consistent with the results of previous studies in high school on Course Learning Attitude in Taiwan [15].

The aspects of course learning attitude and environment learning attitude in learning attitude have reached significant variance. Through analysis using the *Scheffé's* method, students in the intermediate grade category are found to place greater emphasis on the "course learning attitude" aspect as compared to students in the low grade category. Students in the high grade category and intermediate grade category also value the aspect of "environment learning attitude" more than students in the low grade category of "environment learning attitude" than students who choose employment or part-time jobs. The findings are consistent with the results of previous studies in high school on Environment Learning Attitude in Taiwan [9].

Using the Pearson correlation analysis, this study illustrates if a close linear correlation exists between learning motivation and learning attitude, presents the findings as an $R^2$ coefficient in Table *3.*

Table 3: Correlation analysis of learning motivation and learning attitude

| Prediction aspects | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Learning values | 1 | | | | | |
| Performance goal | .388* | 1 | | | | |
| Self-efficacy | .427* | .456** | 1 | | | |
| Curriculum acceptance | .646** | .568** | .515** | 1 | | |
| Course learning | .765*** | .865*** | .702** | .427* | 1 | |
| Environment learning | .494** | .594** | .532** | .357* | .227* | 1 |

Table 3 shows the correlation analysis of the six aspects of learning values, performance goal, self-efficacy, curriculum acceptance, course learning attitude, and environment learning attitude of cosmetology students in vocational high schools. From Table 3, it can be shown that learning motivation has a positive correlation with the learning attitude aspects and the correlation coefficient, r value is distributed within the range of 0.227~0.865 ($p<0.001$).

The results of the regression analysis in Table 4 show that the learning motivation has a positive and significant influence on the learning attitude, so the explanatory power for the aspects of learning values, performance goal, self-efficacy, and curriculum acceptance in learning motivation is 54.8.

Table 4: Regression analysis of learning value, performance goal, self-efficacy, and curriculum acceptance and learning attitude.

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | $R^2$ | Adjusted $R^2$ | F |
|---|---|---|---|---|---|---|---|
| | Beta | Std. E. | Beta | | | | |
| Constant | 13.847 | 1.381 | | 10.026*** | 0.548 | 0.546 | 245.26 |
| Learning Values | 1.043 | .046 | .700 | 22.547*** | | | |
| Performance Goal | .065 | .044 | .035 | 1.472 | | | |
| Self-Efficacy | .112 | .078 | .034 | 1.441 | | | |
| Curriculum Acceptance | .210 | .102 | .065 | 2.063* | | | |

Among the four prediction variables in Table 5, the variable eligible to become the stepwise multiple regression variable is learning values. It has a multiple correlation coefficient(R) of 0.738 and a joint explanatory power of 54.4, which meant that the learning value variable can effectively predict 54.4% of the variability of learning attitude.

Table 5: Stepwise multiple regression analysis of learning motivation and learning attitude

| Selected Variables | R | $R^2$ | $R^2$ Change | F value | F Change | Beta |
|---|---|---|---|---|---|---|
| Learning Values | .738 | .544 | .543 | 967.248 | 967.248 | .738 |

## 5. CONCLUSION

In the learning motivation of the cosmetology courses in this study, female students are found to place greater emphasis on the aspect of "Learning Values" than male students whereas male students value the aspects of "Performance goal, Self-efficacy, and Curriculum acceptance" more than their female counterparts. In terms of career planning, both male and female students have shown no variance in self-efficacy and curriculum acceptance aspects.

This result is consistent with the findings of Kuo's research (2010) that learning motive included factors, such as learning interests, school evaluation, and external expectations in which Kuo's research concluded that student gender had no significant effect on the learning motive [2]. However, this result is inconsistent with the findings of Wu's research (2005) of learning motive, learning behavior and learning outcome of cosmetology students in vocational high schools in northern Taiwan, in which Wu's research concluded that difference in gender, age, values, and social experience will have different significant impacts on "learning motive". A possible explanation could be that due to differences in length of research investigation, respondents and their personalities, difference in residence locations, the results obtained will also be different.

Students who choose to further their studies value the aspect of "Learning values" more than students who choose to seek employment or part-time jobs, amongst which students who seek employment are more concerned with the aspect of "Performance goal" than students who are working part-time. In terms of academic results, students in the high grade category value the aspect of "Learning values" more than students in the low grade category while students in the high grade and intermediate grade categories place greater emphasis on "Self-efficacy" than students in the low grade category.

In terms of learning attitude in the cosmetology courses, female students are more concerned about the aspect of "Course learning attitude" than male students. Students who choose to further their studies place greater emphasis on the "Environment learning attitude" aspect than students who seek employment or part-time jobs. Students in high grade and intermediate grade categories are also more concerned about the aspect of "Environment learning attitude" than students in the low grade category.

Learning motivation presents a positive correlation with the aspects of learning attitude, which means that the aspects of learning motivation, such as learning values, performance goal, self-efficacy, and curriculum acceptance can have a positive and significant influence on the aspects of learning attitude, such as course learning attitude and environment learning attitude. At the same time, the learning value aspect can effectively predict 54.4% of the variability of learning attitude.

This study proposes that cosmetology students can adopt the learning motivations in this study and practical training methods of the professional cosmetology courses to enhance self-recognition and enrich their professional knowledge so as to learn the attitude of learning through practice, reach their study objectives and improve their learning attitude. In addition, instructors can make use of the career plans of students to understand their plans for further studies, employment or part-time jobs. Cosmetology instructors should provide individual students with timely advice and guidance on their career plans to assist the students in self-recognition. At the same time, through the relationship between motivation and attitude in learning, instructors can help students develop the concepts of self-initiated study and helpfully develop their potential for studying through the professional cosmetology courses. As this study has adopted a quantitative analysis investigation method, future researchers are advised to include qualitative research. Through methods such as expert dialogues or student discussions, the problems may be discussed and explored and counseling advice can be offered to ensure better research results.

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