

# The Influence Of Long-Distance Instruction On The Learning Feelings And Willingness Of Interns - Using The Internship Stressor As The Mediator Variable

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## ABSTRACT

An off-campus internship is regarded as an important way for students to learn professional skills and practical working experience. The effect of off-campus internship will influence the students' future choices and development of their careers. This research aims to understand the influence of the off-campus interns on the internship effect through interaction in long-distance instruction, and further discuss whether there is an influence of internship stressor on internship effect. Quasi-experimental research method is applied for an 18-week experimental course, and experimental subjects are from the Department of Hospitality Management of a private University in middle Taiwan and divided into the experiment group and the control group. The former group of 30 participants adopts the strategy of synchronous interactive long-distance instruction; the latter group of 28 participants adopts the strategy of asynchronous long-distance instruction. Data analysis methods include Single-Factor Covariance, Multiple Regression Analysis, and Route Analysis. The experimental results show that the internship effect and internship stressor of the experiment group students are significantly different from those of the control group students, and only have a partial mediating effect on the internship stressor. At present, there is no such related literature in the field of Tourism, Hospitality Education outside Taiwan. It is hoped that this research can make up for the lack of relevant literature, provide internship units and universities with references for internship course planning, or can be used as a basis for future research to propose other teaching strategies.

## Keywords

Long-distance instruction, Internship stressor, Internship effect, Path analysis

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## Introduction

### 1.1 Research background

With the prosperous development of tourism, the demand for professional staff in hospitality and tourism has become ardent. In order to meet the needs of relevant policies and the job market on the cultivation of staff in hospitality and tourism, as well as the education focus on the accumulation and inheritance of knowledge and practice for cultivating the talents in hospitality and tourism, the vocational schools in Taiwan area would set a course of "off-campus internship" in their course design for the students of department of tourism and hospitality management, through which the students could combine the theoretical knowledge with practice in the real work. This is an important way to gain working experience and service skills, and is helpful for them to shorten the primary groping period when first entering the workplace (He Xiuju, Yang Wenguang & Li Suxiang; 2015). The literature confirms that off-campus internship does have positive educational benefits and value (Li Qingsong, Zhao Zhenwei, 2008; Bay, 2006). Off-campus internship can prepare students for personal future professional career, cultivate students' correct understanding of work, workplace and professional ethics, and serve as a reference for their career exploration and employment counseling. Moreover, students can also cultivate the spirit of "serving people" through off-campus internship and inspire the self-fulfillment value that is approved by

customers in the internship unit, which is helpful for their development in future careers.

The hospitality and tourism education courses in European and American countries emphasize learning through internship experience (Cho, 2006; Goeldner & Ritchie, 2006; Kay & DeVeau, 2003). Internship is regarded as an important way to help students acquire professional skills (Lai Qingguo, 2002; Lam & Ching, 2007); and acquire practical working experience (Chang-luan Ho, Ya-Ling Wang, 2012; Barrows & Bosselman, 1999; Lam & Ching, 2007). Many studies have also pointed out that the internship experience and work attitude of interns are important references for their choice of future careers. (Lin Yurong, 2010; Szu-Ying Chou, 2006; Chen Xinhong, 2004). The above shows that the internship effect would have an important influence on students' future career choices and development. (Szu-Ying Chou, 2006; Wu Jiajing, 2008; Zopiatis, 2007). The key factors that affect the students' off-campus internship effect are the learning environment and psychological transformation. The workplace is different from the school environment. When students enter the industry, they must face various work pressure problems and environmental adaptation on their own. (En-Pou Wang, Shih-Kuo Lai, 2016). Therefore, for an educator, how to provide a teaching platform for interns in Taiwan to learn relevant knowledge and skills, workplace ethics, interpersonal relationships, problem solving and spiritual communication is very important.

With the development of science and technology, the Internet and computers have become very popular in daily

life. Long-distance instruction has become a trend in recent years: teachers use the Internet to teach, students use the Internet to interact with teachers and classmates in their study, so that learning extends beyond the traditional classroom. According to the number of long-distance instruction announced by higher education institutions around the world by 2020, it has exceeded 26,000. (Zhou Huaqi, 2020). Therefore, more and more higher education institutions offer distance courses for students, and students' acceptance of distance courses is also increasing. Since the outbreak of COVID-19 in 2020, long-distance instruction has become a good online teaching platform under the education policy of "ensuring learning uninterrupted when classes are disrupted" in various countries (Luo Baofeng, 2016). When interns face interpersonal relationships, environmental adaptation, professional knowledge and skills, work pressure, psychological and emotional problems in the workplace, it can provide a learning environment without limitations of time and space for off-campus interns to achieve ubiquitous learning. Long-distance instruction can be carried out in synchronous long-distance instruction and asynchronous long-distance instruction, so that teachers and students in two places can use the video system to transmit the course content, images, and sounds for a "face-to-face" real-time live teaching and heartfelt sharing (Vincent Shieh, Angela Lo & Ya-Yin Chao, 1990). In the past, many scholars outside Taiwan pointed out that when schools or internship manufacturers want to improve the internship effect of interns, they must first attach importance to the concepts of "healthy workplace" and "happy workplace". Only when interns have a healthy body and mind can they produce good internship results (Lin Baizhang, 2014, Carlson, Kacmar, & Williams, 2000; Spector, et al., 2007). However, the current literature outside Taiwan focuses on the differences in job role behavior, job performance, job efficacy, and job adaptability. Such as: Pei-Yu Jyang (2003) explored the relationship between the self-concept of the students in cooperative educational system and their social adaptation in the internship institutions. Li Zhixin (2003) investigated students' perceptions and experiences of sexual harassment and how they deal with harassment. Chang-luan Ho, Ya-Ling Wang (2012) discussed the learning effectiveness of off-campus internship for students majored in restaurant management from vocational schools. Chang-luan Ho, Lin Yujun, Xue Suzhen (2014) discussed the establishment and design of the off-campus internship knowledge management system for the college students majored in tourism, relaxation, and hospitality. As for how to solve the mental and physical anxiety and emotional problematic conditions caused by the stressors faced by the interns during the internship, such as the overwork, anxiety, depression, mental illness, poor interpersonal relationships, interpersonal conflicts, and other internship stressors derived from the high-stressed work pressure including customers' requirements on service quality, workload, irregular shifts, extra work, customer complaints, etc., which may result in poor job performance and poor internship effect, there are currently no literature on this kind of topic being discussed outside Taiwan. (Lin Baizhang 2014; Ghiselli, La Lopa & Bai, 2001; Ayoun, Palakurthi, & Moreo, 2010; Hua &

Cheng, 2010; Tyssen, Vaglum, Gronvold, & Ekeberg, 2005). Therefore, this research intends to explore the influence of different long-distance instruction strategies on the learning effectiveness of interns, and further uses the internship stressor as the mediator variable to explore the influence of interns' learning feelings and willingness on the internship effect.

## 1.2. Research objectives

Based on the aforementioned research background and motivation, the main research objectives of this research are as follows:

1. Explore whether different long-distance instruction interactive strategies have significant differences on the internship effect.
2. Explore whether different long-distance instruction interactive strategies have significant differences on the internship stressor.
3. Explore whether different long-distance instruction interactive strategies affect the internship effect through the mediator variable of the internship stressor.

## Important Literature Review

### 2.1 Long-distance instruction

Distance interaction can be divided into two types of the synchronous long-distance interaction (different space in the same time) and the asynchronous long-distance interaction (different time and space). The synchronous long-distance interaction means that the parties interact in different places at the same time, and the parties can get immediate feedback; The asynchronous long-distance interaction does not require both parties to use the computer at the same time, and the learners can spend more time replying to the message. Both methods can be put into practice through various ways of text, voice and video, such as the tools including homework, group discussion, learning assessment and course content.

The synchronous and asynchronous long-distance instructions both have their own advantages: the asynchronous long-distance instruction allows students to have enough time to think and clarify their thoughts when they reply, and then write down their thoughts on the forum. Students can focus on the topic concerning course content for in-depth discussion and reflection, and have a deep understanding of the learning content, which will be helpful to their study and alleviate internship anxiety (Hrastinski, 2008). For example, provide students with proper work concepts, workplace ethics, professional knowledge and skills, as well as work procedures and rules, etc. in "pre-internship" stage; problem handling, interpersonal communication and coordination and resolution methods, self-protection in workplace "during the internship" stage (such as the handling of problems like sexual harassment) (Lin Yuexiu, 2005; Lin Jinyan, 2006; Li Qingsong, Zhao Zhenwei, 2008); and the professional career development counseling in "post-internship" stage. The research conducted by Hrastinski (2008) and Zhang (2016) discovered that the asynchronous long-distance instruction

allows students to have more flexible time, as well as enough time to look up the dictionary, organize their thoughts to prepare for answers, and reduce learning anxiety. Although the asynchronous long-distance instruction has more advantages when compared to the synchronous long-distance instruction, students seldom have natural dialogue interaction in the asynchronous long-distance instruction (Mabrito, 2006). At the same time, the asynchronous long-distance instruction asks for more cognitive consideration. If the discussion is about challenging content, learners are more likely to lose interest (Rockinson-Szapkiw & Wendt, 2015). Hrastinski's research (2008) also showed that students believe that when they carry out the asynchronous long-distance interaction, they are not within the scope of a learning community.

When applying the synchronous long-distance strategy, teachers would give class at a fixed time and ask students to talk in the class, and students can get timely feedback after giving opinions, which can successfully improve students' willingness to learn (Pan, 2008). Besides, students can get direct interaction, and easier to have an intimate feelings for each other (McBrien, Jones & Cheng, 2009), to establish a sense of community (Rockinson-Szapkiw & Wendt, 2015), and to be more likely to have a closer cooperation with each other (Strang, 2013) through the synchronous long-distance interaction. However, the synchronous long-distance instruction must overcome the problem of jet lag (Zhang, 2016), and requires a stable network. If the network is unstable, students may be dissatisfied (McBrien, Jones & Cheng, 2009). It seems that the synchronous communication is much popular, for example, Zhang (2016) asks American university students to communicate with their peers through social software such as Skype, QQ, WeChat, etc. Students can choose to use either synchronous or non-synchronous methods to communicate with each other. During this 4-week project, students are asked to spend at least one hour per week to communicate with others. In the reflection on the exchange project after the activity, students mentioned that they like to use synchronous method for communication, because asynchronous communication is relatively less able to obtain timely knowledge and solutions, and takes a long time to get the required information. While the synchronous communication cares for students' conditions in real time, and makes feedback in video, audio or text comments timely (Huang Jianqun, 2013; Instructure, 2013).

## 2.2 Relationship between long-distance instruction and internship effect

The learning platform of long-distance instruction takes Independent learning Mode as its theoretical foundation. Interns can learn the internship professional knowledge, working skills, workplace ethics and morality, interpersonal relationship and other courses on the long-distance instruction platform according to their demands, and they can learn online off-campus. Chen (2004) indicated that the most important spirit in online teaching is that learners can complete independent learning with the assistance of network equipment and online teaching materials. Through internship knowledge sharing, problem solving and

experience exchange, etc., a good interactive teaching platform will enrich the relevant content within the system, effectively use knowledge, and record and preserve the off-campus internship information and professional knowledge that can be continued and passed on to the younger generation. After proper classification and management, the information and knowledge is easy to be obtained by interns when needed, which is conducive to interns' learning. The platform of the long-distance instruction provides professional knowledge such as pre-service preparation, proper work concepts, workplace ethics and morality, interpersonal communication and coordination, problem solutions, self-protection in the workplace (such as the handling of problems like sexual harassment) for students' independent study, as well as put the study notes or video and audios on the platform for students' reference (Lin Yuexiu, 2005; Lin Jinyan, 2006; Li Qingsong, Zhao Zhenwei, 2008). Its advantages include: (1) Students can use video conferencing, long-distance instruction, MSN and SKYPE for real-time online learning. They can use Facebook, computers, smartphones and other tools to access the course content through the Internet at any time for learning. If they have any questions, they can watch it repeatedly and read and take notes at their own speed. It is not restricted by any time and space, which is helpful for the interns to study in depth and obtain good learning results. (Lian Yuren, 2005). (2) Through the vivid pictures, lively colors, and rich storytelling of audio-visual teaching, the interns can understand the entire course content and increase their interest in learning (Clark & Lyons, 2004). (3) Provide teachers and students with a learning environment for multiple collaborative learning, work experience exchange and emotional experience sharing during the internship. Besides sharing knowledge through the network platform, students have much similar knowledge structure and cognitive ability, and it is easier to resonate with each other than with the teachers, colleagues or industry experts, which helps to obtain rich course content (Ding-Yu Liu, 2007). Therefore, the long-distance instruction learning platform helps to construct a good learning environment, allowing interns to gradually form a common learning experience during the interaction process, grow together to create a successful online classroom, achieve knowledge sharing and creation, resource sharing and exchange, experience and emotional exchange, so as to achieve the educational goals of academic growth and improving the quality of learning (Tang Xuanwei, Zhang Jicheng, 2002; Lian Yuren, 2005; Ding-Yu Liu, 2007; Clark & Lyons, 2004).

## 2.3 Relationship between internship stressor and internship effect

In order to allow students to experience the workplace in advance, establish and cultivate a proper working attitude with workplace ethics and social adaptation, and increase school practical teaching resources, employment opportunity of graduates, reduce pre-employment training costs for enterprises, and reserve employment talents (Ministry of Education, 2015), therefore, 74 technical and vocational schools in Taiwan implement full-year or half-year off-campus internship courses. These courses aim to

meet the current needs of the industry, and to increase communication opportunities with companies, to understand the needs and environment of the company so as to adjust the content and quality of practical teaching through off-campus internship channels and to allow students to accumulate practical experience and service skills through trial and error to gain practical work experience in the internship process.

The current status of practical learning courses pays more attention to the environment selection of the internship institutions, working conditions, and the evaluation of student internship effect, such as: get to know and evaluate the working environment, labor conditions and related internship affairs of the internship institution on the spot; assign internship institutions to the students; teacher visits; requirement of students to complete work weekly notes, internship reports, final seminars and results presentation. However, interns' lack of professional knowledge and ability in the workplace, lack of proper work concepts, and maladaptation caused by dealing with customer issues are completely ignored (Cao Shengxiong, Rong Jiye, Liu Liyun, 2000; Chen Lizhen, 2008; Pei-Yu Jyang, 2003; Lin Jinyan, 2006). He Xiuju, Yang Wenguang & Li Suxiang (2015) pointed out that learning pressure is the anxiety or frustration that a student reflects when he cannot bear it during the learning process. It's so strong as to make them worry, annoyed, uneasy and irritable, make their learning process lose balance or generate threats, and then trigger physical, cognitive, emotional and behavioral chain reactions, which will affect their learning effect, and cause physical and mental discomfort. Jones (2006) discovered that if employees have high work pressure problems, they will have significantly negative predictions on job satisfaction, life satisfaction, organizational commitment, and job performance. When students face interpersonal relationship, family conflicts, heavy work, long working hours, unstable work shifts, heavy emotional burden, customer complaints and the corresponding handling, and other work pressureors, they may have trouble coping with customer problems and be prone to emotional exhaustion, emotional disturbance, willingness to quit, depersonalization and deviant work behaviors. (Chung-Hua Institution for Economic Research, 1993; Ayoun, Palakurthi, & Moreo, 2010; Hua & Cheng, 2010; Ghiselli, La Lopa & Bai, 2001). Literature outside Taiwan area has shown that work pressure of interns will affect their work performance (Shun-Wang Hsu, Wei-Ting Lin, Hung-Wen Su, 2010; Shih-Kuo Lai, Li Chenghan, En-Pou Wang, 2013; Hon & Chan, 2013; Jamal, 2005; ). During the off-campus internship period, the intern is a student and an intern employee at the same time. The stressors including serving customers, dealing with customer problems, professional knowledge, unstable working hours, work attitudes and different interests, etc., are easy to cause confusion in roles, insufficient ability and emotional excitement, which makes interns unable to adapt to the workplace environment and internship work, resulting in poor performance in internship (Cao Shengxiong, Rong Jiye, Liu Liyun, 2000; Chen Lizhen, 2008), or even increased willingness of interns to quit the internship (Shun-Wang Hsu, Wei-Ting Lin, Hung-Wen Su, 2010; Yang

Yifeng, Chen Xiaochun, Chen Qingyao, 2012; Jou et al., 2013; Neelamegam & Asrafi, 2010).

## Research Design

### 3.1 Research framework

The framework of this research includes: (1) pretest: The students for the test are all senior college students with the same prerequisite knowledge. (2) internship counselor: the experiment group and the control group share the same counselor. (3) Both groups have the same number of teaching hours and the same schedule. (4) Both groups have the same learning tasks. (5) Both groups use the same assessment content including weekly internship report, feedback report and work performance, etc. (6) The same teacher is responsible for grading both groups. Independent variable 1 is the synchronouslong-distance instruction strategy; the other independent variable is asynchronouslong-distance instruction strategy. Dependent variable is: internship effect. Mediator variable is: internship stressor, as shown in Figure 1.

### 3.2 Experiment design and experiment subjects

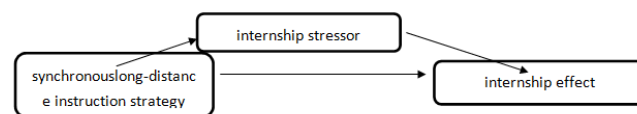


Figure1 Teseach framework

This research adopts teaching experiment design. The experimental subjects are 58 students from two classes of the Department of Hospitality and Tourism Management of a private University, who are conducting internship in Howard Hotel, Tempus Hotel, Windsor Hotel, Evergreen Hotel and Banquet Hall of Hotel National. These students in five hotels are divided into two groups randomly: 30 students with the synchronouslong-distance instruction strategy as the experiment group and 28 students with the asynchronouslong-distance instruction strategy as the control group.

### 3.3 Test tool

#### 1. Internship Stressor scale

Lin Baizhang's Internship Stressor Scale is adopted in this research. This scale includes 7 dimensions: Relationship with supervisors, Relationship with colleagues, Customer service, Workload, Lack of ability, Role ambiguity, and Emotional burden. The reliability of these dimensions is all higher than 0.50, indicating that the inherent quality of the model is good.

#### 3. internship effect test

Technical and Vocational Education Revival Program issued by the Ministry of Education is adopted in this research to analyze the students' off-campus internship. The grading standard is: 60% graded for the performance in the work unit; 40% for the performance at school. The grading



contents include professional skills, learning attitude, work attitude and interpersonal relationship.

### 3.4 Research implementation procedure

The implementation procedure of the research is as follows:

1. Pretest phase: 1st semester of the Year 2019 (Week 1 – 18)

(1) Introduce the courses in Week 1: course description, learning purpose, teaching methods, grading standard and measures. (2) Visit interns by turns monthly; two visits per student in this semester. (3) publish courses concerning professional knowledge, professional technology, work attitude and workplace ethics on the online learning digital platform regularly for students. (4) The internship score of the 1st semester of the Year 2019 is regarded as the pretest score for internship effect. Internship Stressor Scale will be implemented in Week 18 as the pretest of stressors, whose score is used to understand the difference between internship effect and internship stressor. (5) Interns can choose to join the experimental group or the control group by will.

2. Formal experimental phase: 2nd semester of the Year 2019 (Week 1 – 18)

(1) The formal experimental phase lasts for 18 weeks. The experiment group is consisted of 30 interns, adopting synchronous live long-distance instruction strategy; the control group is consisted of 28 interns, adopting asynchronous long-distance instruction strategy. (2) Internship courses are designed according to the teaching purposes: a. “Work Attitude and Workplace Ethics” includes ethical situation analysis, understanding of related work regulations in the hotel, be able to understand the management model and precautions, be able to explain the tasks, responsibilities and duties of the internship, abide by the working rules required by the internship unit, and be able to integrate into the organizational structure and interpersonal communication of the internship unit. b. “Professional Knowledge” courses include communication and expression with the internship units, product marketing, emergency response, case analysis of dilemmas, situation analysis of gender education. c. “Professional Skill” courses include getting familiar with the standard operating procedures (SOP) of the hotel, getting familiar with the service skills and operating skills of the job, restaurant catering, hotel facility design, aesthetic design innovation of the menu, being able to create innovative food menus, and modifying the service process. Besides, YouTube or PPT are used in this research course to present contents such as the vocational training promotion videos produced by Vocational Training Center of Labor Committee by the Executive Yuan: SOP procedures for reception staff, food service staff, housekeeping cleaning staff, and kitchen staff, as well as the actual cases for ethical situation analysis.

(5) End of the experiment: (Week 18)

a. Posttest is carried out. Students should complete Scales of Internship Effect and Stressors in their real name, and should be guaranteed that their answers to the scales have nothing to do with their scores of the course. b. Interview with the students in the experiment group for their feelings and opinions of the teaching activities. c. Finish Feedback Table after Teaching. d. Material Analysis and Writing.

## Result Analysis

### 4.1 Comparison of the impact of different long-distance instruction strategies on the internship effect

The first research objective of this research is to understand whether there is different impact of different long-distance instruction strategies used by the students on internship effect. The descriptive statistics of internship effect of the students in the experiment group and the control group have shown in Table 1: the average pretest score of students in the experiment group is 81.26, and the average posttest score of whom is 87.93. The score increases 6.67 which shows a significant difference; while the average pretest score of students in the control group is 78.18, and the average posttest score of whom is 82.43. The score increases 4.25 which shows a minor difference. The differences between the two groups on average pretest scores are:  $t=0.38$ ,  $p=0.90$ , the measure of effectiveness is Cohen's  $d=0.47$ , without any difference in the pretest scores of both groups; The differences between the two groups on average posttest scores are:  $t=6.02$ ,  $p<.01$ , the measure of effectiveness is Cohen's  $d=0.97$ , which shows a difference in the posttest scores of both groups. Therefore, the internship effect of the experiment group that using the learning platform with synchronous long-distance instruction strategy has better performance than that of the control group that using the learning platform with asynchronous long-distance instruction strategy.

**Table1** Descriptive statistics of internship effect of the experiment group and the control group before and after the experiment

Variables	the experiment group		the control group		t	P	Cohen's d
	Average score	Standard deviation	Average score	Standard deviation			
Pretest	81.26	6.34	78.18	6.52	.38	.9	0.47
Posttest	87.93	5.56	82.43	5.67	6.02	.000**	0.97

Because students have a difference in practical internship ability before the teaching experiment (the pretest academic performance score of the experiment group is 81.26, and the control group is 78.18), the pretest score of the internship effect is set as the covariance, students of both groups using the platforms with different long-distance instruction strategies are set as the independent variable, the posttest score of the internship effect is set as dependent variable, single-factor covariance analysis is used for data analysis. Before using single-factor covariance analysis, the regression coefficient must be firstly checked to see whether it violates the assumption of isomorphism. The results of statistical analysis show that the test of isomorphism,  $P=0.89$  ( $>.05$ ), does not reach significant violation of the hypothesis of isomorphism within the group, indicating that different long-distance instruction strategies and the cross-term of the pretest does not reach a significant level, a covariant analysis is then carried out. Table 2 shows the analysis results: After excluding the influence of the pretest covariant, its F value is 54.65; P value is .00 ( $p<.01$ ), thus a significant impact is achieved, indicating that different long-

distance instruction strategies will have significant difference on the internship effect.

**Table 2** Summary of covariant analysis of different long-distance instruction strategies on the single-factor univariate of internship effect

Sources	SS	Df	MS	F	P	Eta-squared
Corrected mode	1880.83	2	940.42	33.56	.000	.55
Intercept	540.41	1	540.41	19.29	.000	.26
Pretest	502.72	1	502.72	17.94	.000	.25
Different learning platform	1531.55	1	1531.55	54.65	.000**	.50
Error	1541.25	55	28.02			
Corrected total number	3422.09	57				

#### 4.2 Comparison of the impact of different long-distance instruction strategies on the internship stressor

The second research objective of this research is to help students understand whether there is different impact of different long-distance instruction strategies that used by the students on internship stressors. Table 3 shows the descriptive statistics of the internship stressors of students from the experiment group and the control group. Before the experiment, the average pretest score of students in the experiment group using digital learning platform is 60.27; after the experiment, the average posttest score for internship stressors of students using synchronous long-distance instruction strategy in the experiment group is 52.5, with a decrease of 7.77 on internship stressor. While the average pretest score of students in the control group is 58.14, and the average posttest score is 68.61, with an increase of 10.47 on internship stressor with little difference.

**Table 3** Descriptive statistics of internship stressors of the experiment group and the control group before and after the experiment

Variables	the experiment group		the control group		P	t	Cohen's d
	Average score	Standard deviation	Average score	Standard deviation			
Pretest	60.27	19.95	58.14	12.53	.60	.53	0.17
Posttest	52.5	10.69	68.61	19.27	.02*	2.54	0.83

Note: (the average score of the experiment group – the average score of the control group)/the standard deviation of the control group.

\*\* P<.01

The average pretest score of internship stressor in the experiment group adopting synchronous long-distance instruction strategy is 60.27, and the posttest score of it is 52.5; The average pretest score of internship stressor in the control group adopting digital learning platform is 58.14, and the posttest score of it is 68.61. The differences between the two groups on average pretest scores are:  $t=0.53$ ,  $p>.01$ , the measure of effectiveness is Cohen's  $d = 0.17$ , without any difference in the pretest scores of both groups; The differences between the two groups on average posttest scores are:  $t=2.54$ ,  $p < .05$ , the measure of effectiveness is

Cohen's  $d= 0.83$ , which shows a significant difference. Therefore, the internship stressor of the experiment group that adopting synchronous long-distance instruction strategy has better performance than that of the control group adopting asynchronous long-distance instruction strategy. Because students have a difference in internship stressors before the teaching experiment, the pretest score of the internship stressor is set as the covariance, students of both groups using different long-distance instruction strategies are set as the independent variable, the posttest score of the internship stressor is set as dependent variable, and single-factor covariance analysis is used for data analysis. Before using single-factor covariance analysis, the regression coefficient must be firstly checked to see whether it violates the assumption of isomorphism. The results of statistical analysis show that the test of isomorphism,  $F=0.24$ ,  $P=0.63$  ( $> .05$ ), does not reach significant violation of the hypothesis of isomorphism within the group, and a covariant analysis is then carried out. Table 4 shows the analysis results: after excluding the influence of the covariant, its F value is 17.08; P value is .00 ( $p< .01$ ), thus a significant impact is achieved, indicating that adoption of different long-distance instruction strategies will have significant difference on the internship stressor.

**Table 4** Summary of covariant analysis of different long-distance instruction strategies on the single-factor univariate of internship stressors

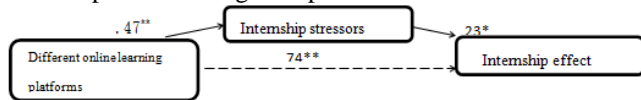
Sources	SS	df	MS	F	P	Eta-square d
Corrected mode	4283.49	2	2141.75	9.19	.000	.25
Intercept	4798.70	1	4798.70	20.60	.000	.27
Pretest	526.08	1	526.08	2.26	.139	.04
Different learning platform	3978.77	1	3978.77	17.08	.000**	.24
Error	12812.10	55	232.95			
Corrected total number	17095.59	57				

#### 4.3 Path analysis of mediating effects of different long-distance instruction strategies, internship stressor and internship effect

This research would discuss whether there is a mediator variable based on the researches by Shrout & Bolger (2002) and Sobel (1982), its regression pattern goes like this:  $Y = +c$  , , mediating effect . If result is significantly larger than zero, it means the effect of independent variable is weakened after the adding of mediator variable, i.e, there is a mediating effect.

Figure 2 presents the research results: when the path regression coefficient of different long-distance instruction strategies and internship stressor  $\beta= 0.47$ , ( $p<.05$ ), which is significant, i.e., internship stressor is influenced by different long-distance instruction strategies; when the path regression coefficient of internship stressor and internship effect  $\beta= 0.23$ , ( $p<.05$ ), which has a significant difference, i.e., internship stressor is in positive correlation to internship effect, indicating the internship effect of the interns would be improved with the increasing of internship stressor; while the path regression coefficient of different long-distance instruction strategies and internship effect  $\beta=0.74$ ,( $p<.05$ ),

which is significant, indicating there is a part of mediating effect. Different long-distance instruction strategies have a direct influence on internship effect, as well as influence internship effect through the path of stressor.



**Figure 2** Paths of different online learning platforms, internship stressors and internship effect

Lin Caiding (2004) pointed out the positive and negative influence of work pressure on job performance. Cavanaugh, Boswell, Roehling and Boudreau (2000) divided working stressors into challenge stressors and hindrance stressors. Challenge stressors have a positive correlation to job performance, and hindrance stressors have a negative correlation to job performance (LePine, LePine & Jackson, 2004; LePine et al., 2005; Wallace, Edwards, Arnold, Frazier & Finch, 2009). McCall, Lambardo and Morrison (1988) further proposed that although challenging work may bring about burdens, they can also be seen as forward-looking and compensatory working experience which worth bearing the discomfort caused by work pressureors. The concluded correlation of internship stressor to internship effect of this research is consistent with the research results of the above scholars.

## Conclusion

Many researches have pointed out the negative influence between work pressureor and internship effect, such as Lv Furu (2010) has indicated that there is a negative correlation between students' work pressure, employment willingness, and job satisfaction, and there is a significant negative impact; Hon & Chan (2013) put forward that work pressure would decrease employees' job satisfaction or job performance. However, another foreign literature and research outside Taiwan proposed that moderate work pressure has a positive impact on employees, because it can stimulate employees' potential in the face of challenging pressure to realize self-growth and improve their performance in work (Wallace, Edwards, Arnold, Frazier, & Finch, 2009). The research result of this research shows that different long-distance instruction strategies would influence internship effect, as well as affect stressor in a positive way; there is a part of mediating effect on the mediating path analysis. In view of this, students can relieve the work pressure of interns through the real-time synchronous long-distance instruction platform, so as to reduce the psychological or physical work pressure, reduce the negative impact of work pressure, and enhance the familiarity and recognition of work and the company, thereby enhancing the internship effect of interns.

The research conducted by Chang-luan Ho, Lin Yujun & Xue Suzhen (2014) noticed that interns majored in hospitality and tourism often encounter multiple workplace stressors, and need to refer to related knowledge such as school curriculum textbooks, educational training textbooks of internship institutions, employee handbooks of intern institutions, personal internship weekly diaries and

experience sharing data, network data, and legal provisions. Students use the synchronous long-distance instruction strategy for real-time video teaching to understand the features of the work environment, workplace ethics, workplace professional skills, interpersonal relationship, self-protection in workplace, workplace norms and work standard processes, so as to avoid interpersonal conflicts in the workplace, shorten the groping time and reduce errors in professional skills. Besides, It is also possible for interns to use synchronous long-distance instruction platform to communicate and interact with classmates, leaders and teachers, share experience, conduct heartfelt exchange, mutual discussion, and problem solution, when they are unable to deal with customer relationships, not fit in supervisor's leadership style, with rusty skills, not good at expression, unable to gain the understanding and recognition of supervisors and colleagues, and in negative emotions in their internship. During this process, a common learning experience can be formed to stimulate the growth of all, so that students can quickly adapt to the working environment, reduce workplace stressors, and strengthen positive forces to meet challenges (Zheng Chenghuang, 2006)..

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