Impact of Educational Service Information Distribution on Students' Satisfaction and Achievement Rate*

Gwi-Ok Min**, Jeung-Hwee Loh***

Abstract

Purpose - The purpose of this study is to discuss problems and propose the direction of the current international university placement program in the country by deriving the concept of and developing questionnaires for 'service satisfaction'.

Research design, data, and methodology –The SERVQUAL scale was used to measure the quality of services. In this study reliability, empathy, and assurance are used to measure the quality of the international university placement system, considering the characteristics of the education environment. The survey data is based on responses from 280 students who either have completed the international university placement system and currently studying abroad, or are studying the domestic part of the program. Cronbach's Alpha value was calculated. To verify the hypothesis, the multiple regression analysis was conducted.

Results - According to the study, the satisfaction rate of the domestic learning process is heavily relied on reliability and empathy; particularly empathy on the curriculum of the international placement program. The study also found that to make students to feel a high sense of achievement, the satisfaction rate is a priority which should be improved.

Conclusions - The results from the analysis of the hypothesis shows that the satisfaction rate of students who are taking the domestic part of the international university placement program should be increased.

Keywords: International University Placement Program, Educational Information Distribution, Satisfaction Rate, A Sense of Achievement.

JEL Classifications: D11, D12, I20, M16, M31.

1. Introduction

1.1. Background

As the level of economical status and globalization of Korea increases, the demand on students for language skills for better communication with foreign countries, in addition to their current studies, continues. As studying in a foreign country without adequate preparation or process of analyzing its procedure can cause time consumption of a students' life and great economic cost, a delicate approach to studying abroad is required. For the delicate approach, it is important that the person who are planning to study abroad has a

subjective judgment, but the priority should be analysis of survey. Based on systematic methodology, it is conducted on students who are currently studying and planning to study overseas. With these factors in mind, this study examined the various features of the international placement program, the program's effects on students as the 'service', the level of satisfaction with the program in the students' point of view, and in conjunction with the satisfaction rate, reviewed the current program's problems, in order to present desired future direction of the program. To achieve this, SERVQUAL scale (Parasuraman et al., 1985, 1988), was used to measure the quality of the service. Five factors of the scale - tangibles, reliability, responsiveness, assurance, and empathy, reliability, assurance, and empathy- were used to determine the quality of education service. From this point of view, this study will derive the implication of the effect in the domestic distribution strategy of the preferred education service through the extensive survey to students who have used and are using the international placement program under current education service system.

---

* This paper is developed from the M.D dissertation by Gwi-Ok Min, Gachon University.
** First Author. PhD student of Business Administration, Gacheon University, Korea. E-mail: Carly@metaedu.co.kr.
*** Co-Author. Policy Analyst. Economic and Social Development Committee, PhD of Science, Korea University. E-mail: jhloh00@hotmail.com.

1.2. Purpose

The purposes of this study are as follows.

First, it is to review the theory related to the measurement of service quality by analyzing the various features with the "international university placement program" which has been developed to meet the growing demand for study abroad and a variety of previous studies.

Second, it is to analyze the impact the properties of the international university placement program service has on students and the level of satisfaction of students in depth.

Third, in connection with the satisfaction level, it is to present a desirable structure of the international university placement program as a service by reviewing the issues the program currently has and suggesting an improved direction for the future.

2. Theoretical Background

2.1. The concept of the international university placement program

With the economic and social changes in our country, higher education environment has tried various reforms in order to adapt to these changes. The primary means to enhancing the international competitiveness in the increasingly fierce international community is by developing excellent human resources. Among college courses, the University-level Program (UP) provides the opportunity for high school students to study the subjects at a college level and be recognized for its evaluation as college credits to achieve excellence in education and to pursue the institutional linkage between high school and university learning. In other words, this is a system that allows high school students to study college-level courses and get certified credits for the results of courses after their admission to universities. By providing an educational program for high achievers in high schools, the system overcomes the limitations of leveled-education environment and by discovering talented high school students in early stage and by pre-teaching university level studies, increasing academic achievements of the students. After completion of the advanced level of study, students do not have to study same subjects or alternatively, get credits towards their study at the university. The program is being conducted under the objective of strengthening the learning link between high school and university education. The expected outcomes from the system are as follows.

First, by providing further education programs at the college level to target a highly specific academic aptitude and skills of high school students in the area to increase the academic achievement of the students so that they can develop their full potential.

Second, because of pre-learned college classes, it is a monetary gain in terms of time and finance. Acquiring some of the pre-credits for graduation, or like those who have completed the required courses may have the opportunity to choose lectures of their interests at the University, it can further help them to graduate early.

Third, experiencing pre-college classes gives individual students a chance to determine their major at universities by providing them with an opportunity to check their interests and academic abilities as well as to confirm their determination for their future study and career (Korea Council for University Education). The objective of this study is analyzing the effects of the distribution of educational information services in the international university placement program on the level of satisfaction and sense of achievement of students who are planning to study abroad.

2.2. The concept of quality of service

Since the mid-1980s, the share of services in the economy have been growing and starting to notice services in many areas as the importance of marketing management has been recognized in service sector. In particular when compared to the product, researches on the differential characteristics of service have been performed by a number of researchers. Studies on the quality of service of particular definition, the dimensions and of the quality of service decision factor of DS10 research have been steadily studied to the practical necessity of measuring the improvement of quality of service (Kim, 2008).

Definition of the quality of service may be affected by both approaches of the objective quality and subjective quality. According to the Monroe and Dodds (1985), where the objective quality is a concept including the subjective reaction of the people and a concept for explaining a practical technical superiority or excellence, the subjective quality is an object between the products. Holbrook and Corfman (1985) expressed the difference between these two definitions as the term 'mechanical quality' and 'human quality'. The mechanical quality is to include an object or surface features of the object or an event, where as the human subjective quality comprises the reaction of people to the object.

On the other hand, according to Kang et al. (2011), researching as well as measuring the quality of services has a fundamental difficulties as collecting customer data is costly process as well as facing an important factor due to the fact that customers who received the service can change their mind afterwards. Researching on services relating to education so far has one axis of the discussion on the measures and dimensions that make up the quality of education services and the other one focusing on elucidating the effect of the relationship between the various factors and quality of educational services. However, each researcher has different views and opinions on the quality of education services therefore a systematic study on the

subject faces a few difficulties (Cho, 2015).

Study on the quality of services was defined by Lehtinen and Lehtinen (1991). Gronroos (1984) started research on service from the consumer's point of view by establishing the concept of quality of service and further developed by Parasuraman et al. (1988). Parasuraman et al. (1988) defined the concept of perceived service quality, excellence and overall judgments and attitudes related services. It was also connected to the 'perceived quality is shown the degree and direction between perception and expectations of consumers, say, by the concept of perceived quality and expected performance (Lee & Yi, 1997). In conclusion, the conceptual characteristics of the quality of service are as follows.

First, the quality of service is, unlike real objects, a customer-oriented concept which is related to the subjective perception and evaluation of different customers. Second, it is the overall assessment, similar in concept and attitude. Attitudes and similar abstract concept rather than a specific property and is a multidimensional concept (Parasuraman et al., 1988). Third, it considers not only the result of service but also the process provided by the service. Fourth, it has more empirical properties than exploratory properties. Fifth, it is determined within a set of ventilation and consumers (Kim, 2008).

2.3. Measuring the quality of service

A method for measuring quality of service in the most generalized model is the SERVQUAL. It is the quality of service measurement tools developed by three American scholars, Parasuraman, Zeithaml, and Berry (1985, 1988) and it is a multiple-item scale that can be used to understand the expectations and assessments of customers by service companies. Detailed descriptions about the SERVQUAL scale are as follows:

Parasuraman et al. (1985, 1988) has developed the SERVQUAL scale to measure the service quality and improved and modified through empirical studies in 1988 into five dimensions - Tangibles, Reliability, Responsiveness, Assurance, and Empathy. In summary, these five dimensions are as follows. The reliability means the ability to service accurately and reliably with commitment. And it also refers to the ability to enhance reliability of the service by addressing customer complaints as providing appropriate service, keeping appointed time frame of the service, and holding records with no mistakes.

The responsiveness is usually interpreted as the will to provide immediate and spontaneous service to customers. In other words, inform customers when the services are provided so that customers can choose the best time for them as well as provide faster service to customers, including willingness attitude to help customers.

Tangibles can be called characteristic of the outward form of physical facilities, equipment, personnel, and various communication mediums. These include the equipments or facilities which are visually appealing and comprehensively modernized material, appropriately dressed staffs who could provide confidence in the service to customers with countenance.

The assurance is the ability to convey a sense of trust and confidence in the service delivered by staffs, as well as the stability to customers and consistently maintained respectful attitudes which assure and increase customers trust in the service.

Empathy can be referred to the care and attention on the individual customers. It includes outwards factors such as individual attention on customers and service providing staffs' appropriate dress code and elements such as sincerity and understanding customer's need, and consideration on working hours for customers' convenience (Jeong, 2008). On the other hand the scale for the universal service has the advantages of scalability that can be used in a variety of on-site services as well as a disadvantage that it has a limit on reflecting the details service features (Park, 2012). Therefore, unlike Gronroos's claim that the configuration level of quality of service is comprehensively, this study has a distinctive merit as it presents individual assessment through refining the determinants by using SERVQUAL model. Also by proposing criteria for the quality of service, this study can identify customers' perceptual evaluation of each criteria, and the customers' perceived service quality then show customer satisfaction level (Kim, 2008).

2.4. Applying the concept of quality service for education service

Applying SERVQUAL service quality measurement method for educational services can be interpreted as follows. First of all, reliability can be interpreted as that training personnel and educator to deliver individual promises in terms of overall services and problem solving in educational service field. And the responsiveness is a willingness to try to respond quickly to the needs of students with the intention of trying to help from educators and lecturers for students. The tangible is satisfaction from students with the facilities for educational service and facilities for the rest. The assurance is the ability to convey a sense of courtesy, trust and confidence in the educators' ability, in another word, educators' ability to deliver trust. And the empathy can be described as personal attention and care on individual students. The core of the empathy is to recognize and empower students with the belief that each of them is unique and special in current isolated and order-systemized education environment.

2.5. The concept and measurement of the satisfaction on learning

In general, when customer feels satisfied with the product after purchase, the customer's intention for re-purchase

becomes higher. The expectation means that the product meets customer-expectations and for customer satisfaction, the service must seek methods to enhance quality or performance of the product purchased (Ham, 2006).

The definition of customer satisfaction has two types, depending on whether it emphasizes on customer satisfaction, process or to emphasize the outcome of customer satisfaction (Yi, 1995). For the customer satisfaction, Engle et al. (1995) defined it as "the selected alternative assessment was consistent with prior convictions for an alternative." and Day (1984) defined it as 'the customer's response in a particular consumption experience to the evaluation of the perceived discrepancy between prior expectations and the actual performances of the product'. When viewed in conjunction these concepts of satisfaction with learning, a change in behaviors is the key considering the purpose of receiving education. If the behavior does not change, it is difficult to discuss the effectiveness of the training (whether it is positive or negative). The changes in behavior are important as even change in mind eventually appears through behaviors. The correlation between surveys carried out before and after the training is low. Even if it was fun and enjoyable experience immediately after training and the satisfaction rate was high, there is no effect on their behavior a month later and, on the contrary cases are also possible. In terms of measuring the satisfaction level, it can be divided depends on whether it focuses on the process or emphasizes the results. According to (Yi, 2000), scholars who value the results are expressed the customer satisfaction as a cognitive state of the consumer feelings on whether the product took the composition properly or improperly, or emotional reactions. Scholars focus on processes argue that customer satisfaction is whether an alternative to the consumption experience was better than customer had expected, or at least chosen product was consistent with prior beliefs about the alternatives. In contrast, sometimes (Park & Cho 1999), argue that it is binding judgment of four types of status - cognitive states, evaluation, emotional response, and combining cognitive states and emotional response. According to these studies, customer satisfaction has both cognitive states and emotional response and therefore, the methods of measuring satisfaction should use plurality of measurement methods to consider both aspects. And use Likert scale as the specific measuring method as it considers the satisfaction and unsatisfaction in a continuous concept (Lee & Hong, 2005).

2.6. The concept and measurement of academic achievement

Academic achievement means educational outcomes and the educational outcomes means the level of achievement of the purposes of the education, such as skills earned through learning. Academic achievement has been commonly accepted as a limited means of 'test scores' in South Korea.

This concept of achievement is being used as a restricted sense of the results of the knowledge and skills learned in school in reality, but it is also introduced as broader concept. According to Kim (1994), the academic achievement is collectively referred as the result of learning such knowledge through education and intellectual abilities, attitudes and values. In another word, the achievement of learning includes often not only the intellectual domain but also non-intellectual area.

(Lee, 1971), also stated that the range of academic achievement does not only includes test results from academic subjects such as language, sociology, and nature, but also the acquisition of knowledge, understanding, function, basic values in conjunction with the learning objectives. Meanwhile, Bloom's (1956) explained the results as the academic achievement of students in schools with the concept of personal intellectual and moral aspects of achieving the goals. The intellectual domain refers to a region representing changes in knowledge or skills, and moral domain is an area which involves daily life such as personal interest, appreciation, attitudes, values, adaptation, and belief systems. To evaluate the academic performance of these measurements, it should measure over several areas of human behavior, however, it is difficult to measure compared to measuring academic achievement. Thus academic achievement often means the learning level of the intellectual domain (Choi, 2008). The measurement of academic achievement can be measured by academic achievement which is classified as the subjective and the objective achievement. The subjective academic achievement means measuring points of the self-report format which was developed by Rovai et al. (2009) to measure learning in the cognitive, affective and deep dynamic range for college students (Park et al., 2010).

3. Study Design

3.1. Research Model

This study identified determinants of domestic part of the international university placement program's service quality in three aspects – reliability, empathy, and assurance by surveying students who are currently attending the international placement program in the country as well as studying abroad after completing the program. It also investigated the satisfaction rate for domestic procedures in learning process and other areas of the process as well as the achievement rate for domestic part of the program. Meanwhile, this study also determined international part of the service quality of the program in three aspects and investigated the satisfaction rate for international procedures in learning process and other areas of the process as well as the achievement rate for the international part of the

program. And it investigated the impact of satisfaction rates for the learning process of the domestic procedure and other aspects of life on the university placement system that ultimately progress in the country. The basis of this research model is shown in the following illustration <Figure 1>.
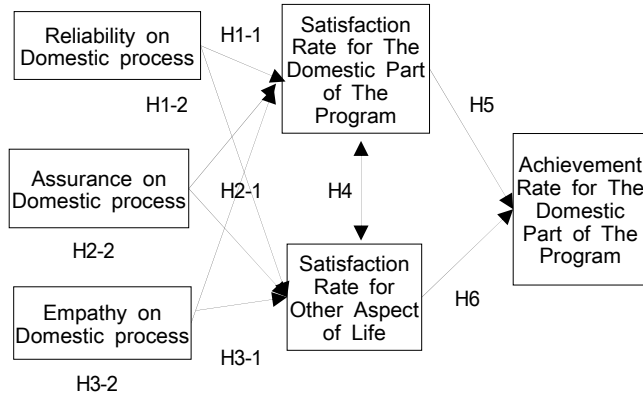
<Figure 1> Study Structure

3.2. Hypotheses

Based on these findings, the following research hypothesis has been established. In detail, these hypotheses and hypothesis auxiliaries supporting them are as follows.

<Hypothesis 1> The domestic part of process's reliability, assurance, and empathy has an impact on other aspects of life in the domestic part of the process and learning process.
<Hypothesis 2> Satisfaction rate of the domestic learning process and other aspects of life influence the achievement rate of the domestic process.
<Hypothesis 3> The international part of the program's reliability, assurance, and empathy has an impact on other aspects of life in abroad and the learning process in abroad.

<Table 1> Verification of Hypothesis Summary

Hypothesis Category		Hypothesis Content
Hypothesis1 Reliability, assurance, and empathy on the domestic learning process influence other aspects of domestic life experience.	1-1	Reliability of the domestic process has a positive effect on the satisfaction rate of the domestic learning experience.
	1-2	Reliability of the domestic process has a positive effect on other domestic life satisfaction
	2-1	Assurance in the domestic process has a positive effect on the satisfaction rate of the domestic learning experience.
	2-2	Assurance in the domestic process has a positive effect on the satisfaction rate of the other domestic life satisfaction.
	3-1	Empathy has a positive effect on the satisfaction rate of the learning experience of domestic process.
	3-2	Empathy has a positive influence on the satisfaction rate of the other domestic life in the domestic process.
Hypothesis 2 Satisfaction rate of the domestic learning process and other aspects of life influence the achievement rate of the domestic process.	4	Correlation variables between .satisfaction rates of the domestic learning process and other aspects of life experience will be high.
	5	Its of life experience will be high. Hypothesis H5 Satisfaction rate of the domestic learning process has a positive effect on the achievement rate of the process.
	6	Satisfaction rate of the other aspects of domestic life has a positive effect on the achievement rate of the domestic process.
Hypothesis 3 Reliability, assurance, and empathy on the international part of program has an impact on other aspects of life in abroad and the learning process in abroad	7-1	Reliability of the international process has a positive effect on the satisfaction rate of the learning process abroad.
	7-2	Reliability of the international process has a positive effect on the satisfaction rate of the other aspects of life experience abroad.
	8-1	Assurance of the international process has a positive effect on the satisfaction rate of the learning process abroad.
	8-2	Assurance of the international process has a positive effect on the satisfaction rate of the other aspects of life experience abroad.
	9-1	Empathy of the international process has a positive effect on the satisfaction rate of the learning process abroad.
	9-2	Empathy of the international process has a positive effect on the satisfaction rate of the other aspects of life experience abroad.
	10	Correlation variables between .satisfaction rates of the international learning process and other aspects of life experience abroad will be high.

4. Study Methods

4.1. Operational definition and measurement of variables

4.1.1. Quality of Service

As mentioned earlier, the SERVQUAL scale, which was developed by Parasuraman et al. (1985, 1988), is applied for the quality of service. However, considering characteristics of education, tangibles and responsiveness are difficult to apply on the educational aspect. In the case of tangibles, it is understood as a dimension to enhance the outward form of the attraction in the service shop. Of course, this can be said that aspects such as the modernization of educational equipments or facilities exist in education, but it is only estimated as secondary aspect. And the case of responsiveness, which means the spontaneity and immediacy of well-known and active service to the customer service hours, is also determined to be a tough concept to apply in the classroom.

Therefore, in this study, reliability, assurance, and empathy from the SERVQUAL scale as the center, reflecting the characteristics of education, and the Likert scale's five-point-system, from very satisfied to very dissatisfied - is used to measure the quality of service.

1) Reliability

The reliability means the ability to perform promised education service with accuracy and trust. Among the factors which determine the quality of education service, customers' perceptions on the quality service is the most important aspect. Therefore, in this study, the customers are named as students. In a broad sense, Reliability is providing promises, which educators and instructors have directly made regarding the overall educational service and problem-solving. Students as customers want to keep the relationship with trainers and education personnel who deliver the promises, especially if the core service commitments are associated with education. The majority of the problems that students remember arise when educators' and instructors' efforts to solve failed core education system lack. Therefore, it is important for educators and instructors to secure reliability with students.

2) Assurance

Assurance is the educators' ability to deliver a sense of courtesy, trust, and confidence in their knowledge, courtesy, dependable ability and to make students to have faith and confidence in all educators and instructors The belief and assurance in educators and instructors among students come from educators and instructors. When there is a trust between lecturers and students, students feel a great satisfaction on overall life and their learning ability will also improve.

3) Empathy

Empathy is the attention and care of the individual student. The key to empathy is that conveying how unique and special each student is through personalized and orderly systemized education service. Students want educators and instructors to understand them and their importance. All educators and instructors will need to know the tendency of students to determine individual needs and build their relationship. In the point of view of educators, having empathy with students is a big advantage. It is because educating students without knowledge on individual student or consensus with them can halve the effect of education.

4.1.2. Satisfaction Rate

As Lee and Hong (2005) described, the customer satisfaction have both aspects, the emotional and cognitive aspects side, therefore, the measurement method for the satisfaction rate is also preferred to use plurality of measurement items to consider both aspects. And the specific measuring method is the Likert scale which regards the most satisfactory and unsatisfactory in a continuous concept.

In this study that educational services as its subject, the satisfaction rate is divided to learning process and other aspects of life and set underlying metrics such as teaching attitude, passion and care in both aspects as the multiple, and applied the Likert scale.

4.1.3. Academic achievement rate

According to Choi (2008), the academic achievement is often confused with grade, which means the level of learning of the intellectual area. However, in the international university placement program, the aim of education is to improve students' ability to study in abroad and provide learning ability which is required by international universities, rather than individual subject's grade.

Measurement for achievement rate applied in this study is the Likert scale and it has three question section in total and each question is composed of sub-items such as how much efforts students put to achieve the aim of the subject, level of ability of understanding lectures, level of self-accomplishment students gain, and the achievement level of English skills.

4.2. Survey and configuration of the questionnaire

Surveyed in this study are 280 students who completed the international placement program in Korea, in October 2013. The survey targets may be re-classified into two groups, the first group is a total of 142 students who are already in the overseas studying at universities after completing domestic process of the program and the second group is a total of 138 students who are currently attending

domestic process. The survey was conducted for a period of eight days from 1st of October to 11th of October 2013, through the legislation based on self-assessment.

The survey responses were collected through a self-assessment via e-mail reply after the legislative period with sufficient explain on the need and purpose for the survey through a variety of communication methods, including e-mail, telephone and the Internet communication. They were distributed a total of 300 sets, and collected 280 sets of replies were used for analysis, except 20 insufficient or insincere survey responses. The configuration of the questionnaire is as follows.

First of all, to gather general information, it asked about the surveyed sex, major and grade of the current school, and to obtain comprehensive information about their future and career plans, it questioned motives of choosing the international university placement program and detailed plan after the completion of the program.

And to measure the service quality of the domestic process of the program from responses of students who have completed the process, established questionnaires consistent with the three aspects of the aforementioned SERQVA, reliability, assurance, and empathy. Also to identify the satisfaction rate in detail, it was constructed and the specific poll on a variety of circumstances that can be presented in the learning process and other aspects of life experience. And, in the case of students studying abroad, as it cost significantly higher expenses than studying in domestic universities, the achievement rate which the students can feel directly is a very important element in the evaluation of the service. As such achievement rate is directly connected with the satisfaction rate of the students the survey had a separate section of questionnaire dealing with the matter.

Secondly, as the students are currently studying abroad, the quality of service of international is also an important target evaluation. Thus the survey was constructed as same configuration as previously constructed questionnaire to survey of the domestic process, it provided the rationale to identify the dynamic correspondence in satisfaction rates between domestic part of program and oversea part of the program. Demographic characteristics of these subjects survey are as follows. Among a total of 280 respondents, the distribution on universities where they are currently studying or hope to study, one hundred and eighty seven students have chosen the University of Tasmania, sixty students have chosen the Australian Maritime College, and thirty three students have chosen the University of Wollongong. According to the result, it appears that the University of Tasmania appeared as the most students want to attend.

Looking at the faculty, 58 students are attending or hope to attend economics and management as their major, 43 students in computer virtual reality, and another 43 students are attending or hope to attend logistics management. By

gender, the number of male students was slightly higher than female students as 157 students were male and 123 female students. In terms of age group, the most of students were aged between 22 to 23 years as 60 %, however, it also showed that 13 students were the age of 29 or over. In each academic background, it showed that students who graduated from high school in Korea were accounted as the vast majority with 249 students, 88.9 % of respondents, were high school graduates.

<Table 2> Characteristics of Overall Respondents

		Frequency	
		N	%
Name of the university	The University of Wollongong	33	11.8
	The Australian Maritime College	60	21.4
	The University of Tasmania	187	66.8
	Total	280	100
Faculty (Major)	Management, Economics	58	20.7
	Virtual reality (Computing)	43	15.4
	Logistics management	45	16.1
	Engineering	22	7.9
	Finance, Accounting	30	10.7
	Design	16	5.7
	Architecture	22	7.9
	Nursing	22	7.9
	Miscellaneous	22	7.9
	Total	280	100
Gender	Male	157	56.1
	Female	123	43.9
	Total	280	100
Age	Under 20 yrs	22	7.9
	20 yrs	17	6.1
	22 yrs	80	28.6
	23 yrs	88	31.4
	24 yrs	36	12.9
	25 yrs	12	4.3
	26 yrs	2	0.7
	27 yrs	7	2.5
	28 yrs	3	1.1
	Over 29 yrs	13	4.6
	Total	280	100
Academic Background	Uncompleted High School (Certified Test)	16	5.7
	High School Graduate	249	88.9
	Uncompleted University	11	3.9
	University Graduate	4	1.4
	Total	280	100

5. Evidence Analysis

5.1. Reliability and Validity Analysis

The results are reliable and consistent when one concept has been through a validity test of the metrics by researchers represent a similar result without being affected by the time or the situation. This is referred as reliability and the technique to test the consistency is referred as the statistical reliability analysis (Jung & Choe, 1998).

In general exploratory research areas it is sufficient if the alpha value is less than 0.6 and in basic research sectors 0.8 enough, and the alpha value that is required in the analysis of the level of organizational units, if the value of alpha is over 0.6, it is considered that there is no problem in the reliability metrics (Van De Ven et al., 1980). In this study, Cronbach's Alpha 0.6 level was applied to reliability test, results for the first quality of service parameters are measured as follows.

<Table 3> Reliability Analysis of Each Variable Factor

Variable	Metrics	Cronbach's α	Cronbach's α
Satisfaction Rate and Improvement for Domestic Process	a1~f15	0.723	0.801
Satisfaction Rate and Improvement for Oversea Process	g1~k8	0.733	

As the applied alpha values in this study for each satisfaction rates for the domestic and overseas process of

the international placement program is over 0.6, it can be inferred that each sections has an internal consistency to each factor.

On the other hand, the factor analysis was used for the feasibility analysis methodology of this study. The principal component analysis was used for factor analysis, and the method of Max Barry rotation from the orthogonal rotation was used for independent analysis between the factors. The factors which its value is more than one based on eigenvalue have been selected. Regarding the items included in factors, as factor carrying capacity of an item is limited to no less than 0.4, same principles applied in this study.

First, regarding the measurement factors of the domestic process, feasibility analysis was carried out by means of factor analysis. As a result, the eigenvalues for the learning process was 2.283, the achievement rate was 2.289, other aspects life experience was 2.077, empathy was 1.748, reliability was 1.449, and assurance was found to be 1.334. The higher the number of eigenvalues of a factor, it can be considered as an important factor than other factors because it indicates the amount of dispersion of the described factor.

In addition, dispersion of each factor showed factor 1 as 8.826%, factor 2 as 8.479% factor 3 as 7.693%, factor 4 as 6.472%, factor 5 as 5.368%, and factors 6 was found to be 4.939%.

Each of the extracted factors were classified again as learning process, and achievement rate, other aspects of life experience, empathy, reliability and assurance.

<Table 4> Feasibility analysis of the metrics of the domestic process

Metrics	Factor					
	Learning Process	Achievement Rate	Other aspects of life Experience	Empathy	Reliability	Assurance
a7	.588					
a8	.526					
a6	.522					
a1	.481					
b14		.596				
b15		.576				
b17		.564				
b16		.503				
c10			.636			
c3			.617			
c11			.543			
c2			.481			
c13			.426			
d7				.617		
d10				.598		
d5				.587		
e5					.701	
e2					.653	
e8					.419	
f6						.706
f4						.691
Eigenvalues	2.383	2.289	2.077	1.748	1.449	1.334
Dispersion (%)	8.826	8.479	7.693	6.472	5.368	4.939
Cumulative Variance (%)	8.826	17.305	24.998	31.470	36.838	41.777

This study used the Kaiser-Meyer-Olkin measure as the factor analysis. The higher value of the KMO measure is the satisfaction rate is high as the KMO measures the extent of correlations between pairs of variables. In general, it is inappropriate to use if its value is less than 0.5 (Jung &Choe, 1998), as a small value of the measure indicates that the selection of parameters is not good enough for a factor analysis.

And in this analysis, the selection of variables can be considered as not bad because the value of KMO is 0.741. The Bartlett's test of sphericity, which indicates the suitability of the analytical model, is that the correlation matrix to test the null hypothesis, therefore, if the null hypothesis is not dismissed, the factor analytical model cannot be used.

Since the domestic process analysis test value is 1032.836 and the significance is 0.000, it can be concluded the use of the factor analysis is appropriate and a common factor exists.

<Table 5> Results of the KMO measure for the validity of the metrics of the domestic process

Kaiser-Meyer-Olkin measure		.741
Bartlett's Test of Sphericity	Approximate Chi-square	1032.836
	Degree of Freedom (df)	351
	Significance	.000

Next, a factor analysis was conducted to analyze the relevance of the metrics for the international process. As a result, the eigenvalues for the empathy was 1.970, for the learning process abroad was 1.954, reliability was 1.671, assurance was 1.580, and the eigenvalues for the other aspects of life experience was found to be 1.342. Eigenvalues can be seen that an important factor The higher the number, it is indicated that the amount of dispersion that factor is described. In addition, dispersion of each factor showed factor 1 as 10.943%, factor 2 as 10.853% factor 3 as 9.291%, factor 4 as 8.779%, and factors 5 was found to be 7.455%.

Each of the extracted factors were classified again as learning process, and achievement rate, other aspects of life experience, empathy, reliability and assurance.

<Table 6> Feasibility analysis of the metrics of process abroad

Metrics	Factor				
	Empathy	Learning process	Reliability	Assurance	Other aspects of life experience
g6	.922				
g5	.920				
g2	.342				
h8		.681			
h9		.575			
h3		.548			
h4		.515			
h8		.454			
i7			.841		
i1			.726		
i5			.413		
j10				.729	
j4				.676	
j2				.477	
k7					.689
k3					.630
k6					.409
Eigenvalues	1.970	1.954	1.671	1.580	1.342
Dispersion (%)	10.943	10.853	9.281	8.779	7.455
Cumulative Variance (%)	10.943	21.797	31.078	39.857	47.312

And in this analysis, the selection of variables can be considered as not bad because the value of KMO is 0.741. The Bartlett's test of sphericity, which indicates the suitability of the analytical model, is the correlation matrix to test the null hypothesis, therefore, if the null hypothesis is not dismissed, the factor analytical model cannot be used.

Since the international process analysis test value is 394.560 and the significance is 0.000, it can be concluded the use of the factor analysis is appropriate and a common factor exists.

<Table 7> Metrics for overseas courses KMO feasibility analysis of results

Kaiser-Meyer-Olkin Measure		.538
Bartlett's Test of Sphericity	Approximate Chi-square	394.560
	Degree of Freedom (df)	153
	Significance	.000

5.2 Verification of Hypothesis

The regression analysis to investigate the different satisfaction rates for the domestic process and international process of the international placement program has been conducted in order to verify the hypothesis.

5.2.1. Verification of hypothesis of the domestic process

According to the outcome of the linear regression analysis, the explanatory power for the SERVQUAL and satisfaction rate of the domestic process was 0.073, significantly higher in <0.01, concluded as statistically significant.

Looking at the statistical significance of each factor of SERVQUAL results of the regression analysis between reliability and satisfaction rate for the domestic learning process, t value was 2.928, higher than the standard value, 2. The value was found to be 0.004. The regression analysis between assurance and satisfaction rate for the domestic learning process, t value was 1.743, lower than the standard value, 2. The value was found to be 0.082 which is higher than standard value of 0.05. The results of regression analysis between empathy and satisfaction rate for the domestic learning process, t value was 7.942, higher than the standard value, 2. The value was found to be 0.025. Therefore hypothesis H1-1 and H3-1 were adopted hypothesis H2-1 have been dismissed.

<Table 8> Regression analysis verification on domestic process 1

Model		Non-standardized coefficients		Standardized coefficients	t	Significance	Judgment
		B	Standard Error	Beta			
Argument	(constant)	2.050	.258		7.942	.000	
	Reliability (Domestic process)	.165	.056	.175	2.928	.004***	Adapted
	Assurance (Domestic process)	.064	.037	.102	1.743	.082	Dismissed
	Empathy (Domestic Process)	.111	.049	.134	2.252	.025**	Adapted
R: 0.269 R^2: 0.073 Modified R^2: 0.062 a. Dependable Variables: Domestic Learning Process **p<0.05 ***p<0.01							

Next, the outcome of the linear regression analysis, the explanatory power for the SERVQUAL and satisfaction rate of the domestic process was 0.035, higher in <0.01, concluded as statistically significant. According to the result of the statistical significance of each factor in the regression of the SERVQUAL, between reliability and satisfaction rate of the domestic process and other domestic life t value was 1.528, lower than the standard value, 2. The value was found to be 0.128. The regression analysis between assurance and satisfaction rate for the domestic learning process, t value was 0.445, lower than the standard value, 2. The value was found to be 0.657. The results of regression analysis between empathy and satisfaction rate for the domestic learning process, t value was 2.304, higher than the standard value, 2. The value was found to be 0.022. Therefore hypothesis <H1-2> and <H2-2> were dismissed hypothesis <H3-2> has been adapted.

<Table 9> Regression analysis verification on domestic process 2

Model		Non-standardized coefficients		Standardized coefficients	t	Significance	Judgment
		B	Standard Error	Beta			
Argument	(constant)	2.354	.297		7.917	.000	
	Reliability (Domestic process)	.099	.065	.093	1.528	.128	Dismissed
	Assurance (Domestic process)	.019	.043	.027	.445	.657	Dismissed
	Empathy (Domestic Process)	.130	.057	.140	2.304	.022**	Adapted
R: 0.186 R^2: 0.035 Modified R^2: 0.024 a. Dependable Variables: Domestic Learning Process ** p<0.05 ***p<0.01							

And, the result of the linear regression analysis showed that the explanatory power for the achievement rate and satisfaction rate of the other aspects of domestic life experience was 0.121, higher in <0.01, concluded as statistically significant.

The statistical significance of each factor of SERVQUAL results of the regression analysis between achievement and satisfaction rate for the other aspects of domestic life experience, t value was 3.042, higher than the standard value, 2. The value was found to be 0.003. The regression analysis between achievement rate and satisfaction rate for the other aspects of domestic life experience, t value was 3.893, higher than the standard value, 2. The value was found to be 0.000 Therefore, hypothesis <H5> and <H6>, both were adopted.

<Table 10> Regression analysis verification on domestic process 3

Model		Non-standardized coefficients		Standardized coefficients	t	Significance	Judgment
		B	Standard Error	Beta			
Argument	(constant)	1.822	.232		7.866	.000	
	Domestic Learning process	.204	.067	.184	3.042	.003***	Adapted
	other aspects of domestic life experience	.231	.059	.236	3.893	.000***	Adapted
R: 0.348 R^2: 0.121 Modified R^2: 0.115 a. Dependable Variables: Domestic Learning Process **p<0.05 ***p<0.01							

As a result the correlation analysis, the respondents were included in the analysis of the probability of significant correlation in both test and Pearson's correlation coefficient for the two variables. The correlation coefficient between the two variables between domestic learning process in relation to other aspects of life experience is 0.365 which was analyzed to have a significant relevance as the significant probability value is 0.000. The correlation analysis verification between the domestic learning process and other aspects of domestic life experience, the two factors' correlation is normal and have a correlation coefficient.

Therefore, the hypothesis <H4> is normal in correlations but appeared positive.

<Table 11> Correlation analysis of the domestic learning process and other aspects of domestic life experience

The Correlation Coefficient			
		Domestic Learning Process	Other Aspects of Domestic Life Experience
Domestic Learning Process	Pearson's correlation coefficients	1	.365**
	Significant probability (both sides)		.000
	N	280	280
Other Aspects of Domestic Life Experience	Pearson's correlation coefficients	.365**	1
	Significant probability (both sides)	.000	
	N	280	280
** The correlation coefficient is significant at the 0.01 level (both sides)			

5.2.2. Verification of hypothesis of the international process

According to the outcome of the linear regression analysis, the explanatory power for the SERVQUAL and satisfaction rate was 0.059, significantly higher in <0.01, concluded as statistically significant.

Looking into the statistical significance of each factor of SERVQUAL results of the regression analysis between reliability and satisfaction rate for the international learning process, t value was 1.339, lower than the standard value, 2. The value was found to be 0.183. The regression analysis between assurance and satisfaction rate for the international learning process, t value was 1.097, lower than the standard value, 2. The value was found to be 0.274 which is higher than standard value of 0.05. The results of regression analysis between empathy and satisfaction rate for the international learning process, t value was 20288, higher than the standard value, 2. The value was found to be 0.024. Therefore hypothesis <H7-1> and <H8-1> were dismissed hypothesis <H9-1> has been adapted.

<Table 12> Regression analysis verification on the international process 1

Model		Non-standardized coefficients		Standardized coefficients	t	Significance	Judgment
		B	Standard Error	Beta			
Argument	(Constant)	1.894	.509		3.723	.000	
	Reliability (International process)	.121	.090	.111	1.339	.183	Dismissed
	Assurance (International process)	.131	.120	.091	1.097	.274	Dismissed
	Empathy (International process)	.175	.076	.189	2.288	.024	Adopted
R: 0.244 R2:0.059 Modified R2:0.039 a. Dependable Variables: International Learning Process ** p<0.05 ***p<0.01							

And, the outcome of the linear regression analysis, the explanatory power for the SERVQUAL and satisfaction rate of the International process was 0.024, higher in <0.01, concluded as statistically significant. According to the result of the statistical significance of each factor in the regression of the SERVQUAL, between reliability of the international process and the satisfaction rate of the other aspects of life experience abroad, t value was 0.673, lower than the standard value, 2. The value was found to be 0.17. The regression analysis between assurance and satisfaction rate for the other aspects of life experience abroad, t value was 0.673, lower than the standard value, 2. The value was found to be 0.502. The results of regression analysis between empathy and satisfaction rate for the other aspects of life experience in abroad, t value was 0.864, lower than the standard value, 2. The value was found to be 0.389. Therefore hypothesis <H7-2>, <H8-2>, and <H9-2> were all dismissed.

<Table 13> Regression analysis verification on international process 2

Model		Non-standardized coefficients		Standardized coefficients	t	Significance	Judgment
		B	Standard Error	Beta			
Argument	(Constant)	2.461	.534		4.607	.000	
	Reliability (International process)	.064	.095	.057	.673	.502	Dismissed
	Assurance (International process)	.179	.126	.121	1.425	.157	Dismissed
	Empathy (International process)	.069	.080	.073	.864	.389	Dismissed
R: 0.156 R^2: 0.024 Modified R^2: 0.003 a. Dependable Variables: Other Aspects of life Experience in Abroad ** p<0.05 ***p<0.01							

The correlation coefficient between international learning process and the variables in relation to other aspects of life experience in abroad is 0.062 analyzed that there is no significant relevance because the probability of significant value 0.466. The correlation analysis verification between the international learning process and other aspects of life experience in abroad, the two factors do not appear significant and the correlation was low, Therefore hypothesis <H10> was dismissed.

<Table 14> International Correlation of the learning process and other aspects of life in abroad

The Correlation Coefficient			
		International Leaning Process	other aspects of life in abroad
International Leaning Process	Pearson's correlation coefficients	1	.062
	Significant probability (both sides)		.466
	N	142	142
other aspects of life in abroad	Pearson's correlation coefficients	.062	1
	Significant probability (both sides)	.466	
	N	142	142
** **. The correlation coefficient is significant at the 0.01 level (both sides)			

6. Conclusion

6.1. Summary of the study

The purpose of this study is to establish the concept of 'services' which has different perspectives according to the scholars through formulation process of the concept of 'service satisfaction' for studying abroad and developing questionnaire items. Surveys were carried out to students who have completed the program and currently studying abroad or currently attending the domestic process, then deriving problems and improving the direction of the current program by statistical approach towards satisfaction and achievement rates.

Reviewing the prior study, the human labor produced by the service shall be defined as the non qualitative entities that rely on human behavior itself. The quality of the service is, as defined by Kim (2008), unlike the objective or real entities, customer-oriented concept of being in that customers' perception and overall assessment and at the same time, the attitude associated with the subjective evaluation and the process of service provided as well as experiential properties of the concept that is determined within a set of environment and consumers.

As a method for measuring service quality, the SERVQAUAL Parasuraman et al. (1988) is proposed. The SERVQUAL is consists of five measures of tangibles, reliability, responsiveness, assurance, and empathy. In this study, taking into account the characteristics of education among the five measures, reliability, empathy and assurance are applied to measure the quality of the international placement program as a service. Considering previous research results and educational environment, this study surveyed a total of 280 students, who are either studying in abroad after completing domestic part of the program or

currently attending domestic process. Their satisfaction rate and the quality of the international placement program as service was evaluated. The purpose of this study, establishing a satisfaction survey of educational services aiming study abroad, provided the basis of hypothesis and established ten secondary hypotheses. Looking at the test results of these hypotheses, the result of the Cronbach's α coefficient which was carried out to test the reliability of the measured variables, the α value of satisfaction related to the domestic process and international process, was 0.801 which is higher than the standard value of 0.6. Based on the KMO measure, the selected variables in the questionnaires are valid and have a common factor.

After these variables selection processes, among the above-mentioned hypothesis' verification results, the hypothesis adopted by regression analysis and correlation are as follows. First, regarding the hypothesis about the domestic process, reliability and empathy have a positive impact on the satisfaction rate of the domestic learning process. Empathy on the quality of domestic process has a positive impact on the other aspects of life. Also satisfaction rate of the domestic learning process and other aspects of life have a positive impact on achievement rates of the domestic learning process. Meanwhile, satisfaction rate of the domestic learning process and other aspects of life experience are shown to be interacting.

In the case of the hypothesis for the international process, empathy on the quality of the international process as a service has a positive impact on the satisfaction rate of the international learning process.

Hypothesis <H1>, <H2>, and <H3>, were verified by using a multiple regression analysis in order and the results can be summarized as previously described in the table below.

<Table 15> Verification Result

Hypothesis Category		Judgment
Hypothesis1 Reliability, assurance, and empathy on the domestic learning process influence other aspects of domestic life experience.	1-1	Adapted
	1-2	Dismissed
	2-1	Dismissed
	2-2	Dismissed
	3-1	Adapted
	3-2	Adaopted
Hypothesis 2 Satisfaction rate of the domestic learning process and other aspects of life influence the achievement rate of the domestic process.	4	Positive
	5	Adopted
	6	Adopted
Hypothesis 3 Reliability, assurance, and empathy on the international part of program has an impact on other aspects of life in abroad and the learning process in abroad	7-1	Dismissed
	7-2	Dismissed
	8-1	Dismissed
	8-2	Dismissed
	9-1	Adopted
	9-2	Dismissed
	10	Dismissed

6.2. Implications of the study

In summary, the implication of the results of this analysis is that the satisfaction of domestic learning process has to have high reliability and empathy on the international placement. This is especially true for empathy on the learning process influences on not only learning processes but also evaluation on learning environment as well as the attitude of educators. In the results that satisfaction rate of the domestic learning process is in interaction with the satisfaction rate of other aspects of domestic life, it suggests that for students to study, there should be various systematic supports for the education and the importance of the roles of educators and instructors as well as learning process itself. In the case of the international part of the program, high empathy on the quality of the educational service influences the satisfaction rate. Thus, according to the results of the hypotheses verification, in order to enhance the satisfaction rate of the domestic part of the

international placement program, the reliability and empathy on the domestic process has to be improved by appropriate levels of tuition fees and implementing various procedures as well as enhancing the quality of educators. The students' choice of subject or future plan should be fully discussed. Meanwhile, in order to enhance the satisfaction of students who are currently taking the international part of the program, it suggests that appropriate amounts of information should be available for the students so that students would not find significant differences from their understanding of the situation from countries where they are studying.

According to the findings, for the students who are taking the domestic part of the international placement program to obtain more tangible results, various activities to improve the empathy on the international part of process by providing a substantial domestic learning process and more information as preconditions. In particular, the wide range of information on advantages and disadvantages of the international placement program and future career plans should be provided as the precondition.

6.3. Limitations of the study

The biggest limitations of this study can be the short period of the survey and the narrow scope of the research's object matter. For the international part of the program, there are other factors associated with this learning process; a variety of social and economic factors such as exchange rate or the social atmosphere of the country. As exchange rates are directly influence the quality of life of students staying abroad, survey conducted in future for the satisfaction rate requires a broad review on these social and economic factors.

The second limitation is that as the survey was one-time off and carried out regardless of the schedule of the international placement program, it could not track the changes over time. In particular, there is a possibility that students' satisfaction rate will vary according to the time coupled with social / economic changes. Therefore, for future research to be more in depth, through carrying out annual research on the subject, a systematic analysis of the results configured panel data is required.

References

Bloom, B. S. (1956). *Taxonomy of Educational Objectives: the Classification of Educational Goals: Handbook1, Cognitive domain*. New York: McKay.

Cho, H. J. (2015). Effects of Education Service Quality on Relationship Management from the Service Distribution Perspective. *Journal of Distribution Science*, 13(3), 41-49.

Choi, H. S. (2008). A Study on the Effect of Parents and Relatives` Social Capital on the Students` Academic Achievements: Focusing on the First-Grade Students of High Schools in Seoul. Yonsei University graduate school Doctoral Thesis,

1-164.

Day, Ralph. L. (1984). Modeling Choices Among Alternative Responses to Dissatisfaction. *Advances in Consumer Research*, 11, 496-499.

Dodds, W. B., & Monroe, K. B. (1985). The Effect of Brand and Price Information on Subjective Product Evaluations. *Advances in Consumer Research, 12,* 85-90.

Gronroos, C. (1984). A Service Quality Model and Its Marketing Implication. *European Journal of Marketing*, 18(4), 37-40.

Gronroos, C. (1993). A Service Quality Model and It's Marketing Implication. *European Journal of Marketing*, 18(4), 36-44.

Ham, B. J. (2006). *Marketing Management for The New Century.* Seoul, Korea: Hyeongseol Publication.

Holbrook, Morris B., & Corfman, Kim P. (1985). Quality and value in the consumption experience: Phaedrus rides again. In Jacoby Jacob, Olson Jerry C. (eds.), *Perceived quality: how consumers view stores and merchandise.* MA: D.C.: Lexington.

Jeong, S. Y. (2008). Study on Service Experience and the Definition of Quality Measurement Scale : Focusing on Banks and Hotels. Daejeon, Korea: KAIST Graduate school Master Thesis.

Jung, C. Y., & Choe, R. G. (1998). *Window version SPSS) Statistical Analysis Using SPSSWIN.* Trade and Management.

Kang, G. Y. (2013). An Influence of the Satisfaction on Factors related to Educational Services sales of Re-registration and the Word of Mouth. *Journal of*

Distribution Science, 9(3), 15-23.

Kim, S. I. (1994). The Goal of Education Reform is in the School. *Korean Educational Development Institute*, 87, 27-31.

Kim, Y. S. (2008). *Customer Satisfaction Theory.* Seoul, Korea: Korean Studies Information.

Parasuraman. A., Zeithaml, V. A., & Berry, L. L. (1985). Problems and Strategies. *Journal of Marketing,* 49(1), 34-35.

Parasuraman, A., Zeithaml. V. A., & Berry, L. L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perception of Service Quality. *Journal of Retailing*, 64(1), 16-17.

Parasurman, A., Zeithaml V. A., & Berry, L. L.(1994). Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research. *Journal of Marketing*, 58(1), 47.

Parasuraman. A., Zeithaml V. A., & Berry, L. L.(1996). The Behavioral Consequences of Service Quality. *Journal of Marketing*, 60(2), 31-46.

Lehtinen, U., & Lehtinen, J. R. (1991). Two Approaches to Service Quality Dimensions. *The Service Industries Journal*, 11(3), 287-303.

Yi, Y. J. (1995). Study on The Definition and Measurement of Customer Satisfaction. *Seoul National University Management Theory*, 29(1-2), 145-168.

Yi, Y. J. (2000). A Theoretical Examination of Customer Satisfaction Resear*ch:* Findings and Outlook. *Journal of Consumer Studies*, 11(2), 139-166.