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Effectiveness of Learning Performances According to Financial Motivation of University Students

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Abstract

Purpose - The aim of this study is to explore the effectiveness in educational differences between students of the government's financial-funded groups and the non-financial-funded groups at a university in Korea.

Research design, data, and methodology - The study was conducted using a survey tool of National Assessment for Student Engagement in Learning. In total, 334 participants were surveyed, of which 290 students were participants in economic support program and 44 were non-attendance program students. The general characteristics of all of the participants were investigated by frequency analysis. The analysis of participants' collective characteristics used independent t and f-test, and one-way ANOVA with IBM SPSS Statistics package program 22.0.

Results - The number of participating students is higher than that of non-participating students in relation to in-activities of university immersion, but the number of participating students is lower than that of non-participating students in relation to in-quality of student support. However, there was no statistical significance. The confidence coefficient of the university-immersion and student support questionnaire is 0.860 and 0.913, respectively.

Conclusions - There is no significant difference in the activities of university immersion and student support between students who participate in the economic support program and those who do not.

Keywords: Learning Performances, Financial Motivation, University Immersion, Quality of Student Support, University Student.

JEL Classifications: G41, I21, I22.

1. Introduction and Theoretical Background

1.1. Introduction

A role of learning is to transfer an organized pattern of thought or behavior (schema) developed in the working (short-term) memory to long-term memory so that the

learner becomes familiar with finding solutions to any similar problems (Abeysekera & Jebeile, 2019). Financial incentives related to academic learning performance have been proposed in a cost-effective way as a motivation to support improvements in learning. Since the motivation to study and engage in academic activities play a key role in students' learning experience and well-being, gaining a better understanding of dentals' motivations can help educators implement interventions to support students' optimal motivations (Orsini, Binnie, & Jerez, 2019). Similar methods can be applied not only to dental students, but also to medical care management students.

However, one reason why students may fail to exert the effort necessary to reach their potential is that they are not sufficiently motivated to do so (List et al., 2018). Among their traditional role, governments heavily subsidize higher education through giving direct institutional support, provide students with financial assistance, and play a primary role in overseeing institutions (Cheslock & Hughes, 2011).

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With regard to Ministry of Education's financial support in Korea, it is first important to understand the content of the university education capacity enhancement project. The university education capacity enhancement project provided a starting point for financial motivation for undergraduate education away from the research-oriented financial support system, and the formula financial support system was adopted. The importance of educational activities to improve the quality of education as a process has been highlighted, and the importance of assessment of education courses has been emphasized in recent university assessment and financial support projects (Bae et al., 2015). In addition to providing information on the factors that affect the performance of university education, there is a growing interest in the use of information, and ultimately the degree of university commitment has become a positive measure (Choi et al., 2018). While attending school, students make decisions about the time and effort they devote to learning activities (Oswald & Backes-Gellnet, 2014).

Korea's university financial motivation projects adopted a general support program for almost all universities until the early 1990s. However, the size and type of special purpose support projects, including the nature of special purpose support projects, have increased significantly since the announcement of the educational reform measures in 1995 and have been switched from a general purpose support method to a special purpose support system that emphasizes choice and concentration in order to strengthen the competitiveness of universities (Song et al., 2018). From 2008, formula funding was introduced to select targets for financial support and to determine the size of financial support (Hwang & Jung, 2018). Formula funding is based on vertical fairness in which more resources are allocated to universities striving to improve the quality of education.

In particular, it can be construed that the characteristics of universities most influential in promoting the characterization of university convergence are the composition of departments and majors of universities. Therefore, it is emphasized that the direction and strategy of characterization taken by universities can also be differentiated depending on the composition of the academic field (Lee & Lee, 2015).

Not surprisingly, a growing empirical literature investigates the role of incentives in education in general and the role of financial incentives for student performance in particular (Fryer, 2011). Unfortunately, however, there is little research on the quality of student support and university immersions related to university participation in programs that have an economic incentive effect in Korea.

In the meaning of immersion, Blumenthal and Jensen (2019) suggested three distinct stages in the immersion process -- "involvement triggers", "involvement words" and

"state of immersion", and each stage was connected to an increasingly higher level of involvement. The effect of immersion on satisfaction and loyalty was stronger when social interactions were low and weaker when social interactions were high (Hudson et al., 2018).

However, in this study, the meaning of university immersion was considered to be a factor affecting the performance of university education and utilized in various theoretical and empirical studies. In general, the characteristics of university students, such as concentration environment, attitudes and interests, and pre-school education experience, influence university immersion in college and the level of integration of students into academic and social systems. From human capital theory, we would expect subsidies to increase the net return to education and help to offset credit constraints (Gunnnes et al., 2013).

Therefore, the present study seeks to investigate how and how participation in the specialization project will affect the quality of student support and the activities of university immersion activities for students who participate in the specialization project due to economic motivation.

The specific objectives of this study are as follows.

1. Identify the differences in the gender, age, high school grades, type of admission, university immersion activities by grade, and student support of the entire survey target.
2. Identify the differences between grades of students who participate in specialization, such as university immersion and the quality of student support
3. Through the analysis of the quality of university immersion activities and student support, the difference between specialized and non-participating students is identified.
4. Through analysis of the detailed factors of the teaching and learning process, the difference between students who participate in characterization and nonparticipation is identified.

1.2. Theoretical Background

Although there are three basic theories of learning that are fundamental to the understanding of instructional design like a behaviorism, cognitive, and social constructivism (Salehinejad & Samizadeh, 2017), this study explores learning interventions of economic motivations, including all of the above three theories. The main proliferation of school intervention in the last decade encourage students to improve school achievement. Many studies suggest that while such programs can have positive effects for certain groups of students, they can have none or even negative effects for other student groups (Oswald & Backes-Gellner, 2014). So far, the reason for this heterogeneous behavioral

response to financial incentive programs in education is relatively small.

The Creative Korea (CK) is a project to strengthen university competitiveness based on the characterization of universities considering their role and function in the community. It is financial support project that began in March 2014 and lasted until February 2019 (Choi et al., 2019).

The "Quality in Undergraduates Education" (QUE) participated by 21 universities in four U.S. states, the "Wabash National Study," which conducted a final study on the results and influencing factors of liberal arts education and the "Educational Education Improvement Program," which is centered on the Office of the Vice-President of Stanford University, is the main measure in enhancing the quality of teaching activities (Shin & Choi, 2014).

The Korea National Survey of Student Engagement (K-NSSE) diagnostic tool (revised in 2013), which is widely used as a tool to measure the quality and performance of university students' learning experiences at American universities, was revised and supplemented in the context of Korean universities (Astin & Antonio, 2012).

In 2015, the Korean Educational Development Institute (KEDI) developed a survey titled "NASEL, National Assessment of Student Engagement in Learning" by teaching, learning process, performance measurement, and evaluation method and began applying it to the performance management of Korean university characterization education (Cho & Kwon, 2015). In particular, the degree of university immersion by university students is one reason to judge whether they are active and positive based on their affiliation and attachment and also to see if they have a positive influence on teaching and learning (Choi et al., 2019).

A survey of university students related to teaching and learning is generally conducted by students (Seo & Cheon, 2018), and satisfaction level (Kim & Park, 2016; Min & Loh, 2016), quality and performance of undergraduate education (Shin & Choi, 2014; Pedersen, 2010) and learning capacity (Choi et al., 2018) are being used in a variety of fields.

In addition, by analyzing the data from the Korean Education Employment Panel, participation in schools improved learning performance and strengthened the educational accountability of universities through the formation of positive relationships between schools and students (Kim & Kim, 2013). Currently, school-participation improvement measures are an important topic of school reform, addressing all school problems and contributing to academic performance (Mark, 2000; Taylor & Robinson, 2012).

However, the tangible and intangible conditional rewards of financial support in real universities are motivations for

students' desire to learn or to perform in a manner that stimulates external motivation (Hwang & Jung, 2018). If the university has leadership and excellent capabilities through financial support in certain areas of the university, it can be seen as an incentive for voluntary participation in industry-academic cooperation in at least that area, which will greatly help students not only to strengthen their capabilities but also to find employment (Han & Yim, 2018).

The influx of universities, which refers to the degree to which students perceive to fit in with the university they are attending (Bean, 1985), has drawn attention as a key factor in predicting the performance of university education, including academic continuation, in some university effectiveness studies. Research that focuses on the nature and operation of university immersion is still insufficient. While university immersion has been considered one of the main factors in many prior studies, it is relatively recent that university immersion itself has emerged as a key subject of research. In particular, only a limited number of researchers has studied university immersion (Hong & Bae, 2015).

The definition of university immersion is based on the definition that has been conceptualized as having a sense of belonging to the university in which one is attending, confident of one's choice of university and feeling that one and one's university are generally well suited.

2. Research Method

2.1. Survey Target and Period

The study analyzed A University, a four-year university located in Gang Reung-city in Korea. The survey period was conducted for about 10 days from April 3, 2018 to April 13, in 2018 within the campus. The specialization project group consisting of a single department of medical care management was newly selected for the university characterization program from September 1 in 2016 from the Korean Ministry of Education. The number of students enrolled in the medical care management department of the university specialized project group was 290, all of whom were naturally surveyed, and 44 students from other departments who were not included in this business group were also surveyed as control groups. As such, questionnaires were distributed to 334 students in the school.

2.2. Key Survey Contents and Questionnaires

The survey was conducted using NASEL, which consisted of about 200 items. Main contents of NASEL include the

general background of students, the content of university life surveys, and the criteria for the examination of teaching and learning capabilities. Among 200 questionnaires, the actual distributed 33 questionnaires were selected from 173 items related to this study. In other words, there are 8 general characteristics, 7 of the survey questions related to university immersion, 10 questions on the quality of student support, and 8 items of detailed factor of teaching and learning process.

The scale for the survey consists of Likert's four-point scale (1=not at all, 2=no, 3=yes, 4=very much), and the higher the score, the more positive it means.

2.3. NASEL as a Research Tool for "Strategic Exploration of University Teaching and Learning Quality"

The questionnaire used in this study was NASEL (National Assessment for Student Engagement in Learning). In fact, at Korean national universities, NASEL is considered to be a survey tool that is suitable for teaching, learning process and performance, so it is highly utilized in the field of teaching and learning (Cho & Kwon, 2015). The NASEL consisted of seven large areas: activities in class, activities outside the class, interaction with the professor and student relationship, learning performances, support services of universities, university immersion, and personal background, and 173 questions in detail, including university student support services and university immersion.

As Table 1. suggests in the category of university immersion activities and the quality of student support, other personal backgrounds consisted of eight questions: age, sex, grade, high school grades, type of university entrance (new, incorporated), type of student admission (frequent, regular time), department of affiliation (medical care management, other), and major transfer.

Table 1: The quality of university immersion and student support in the field of teaching and learning competency diagnosis standards

Teaching and learning competency criteria	Large area	Small area	Items
university immersion	learning result	university immersion	I think I'm a member of the department.
			I feel like a member of a university.
			I take pride in being a member of the department.
			I feel proud as a member of a university.
			This university meets my expectations.

quality of student support	university support service	satisfaction of learning support	I am satisfied with my current decision to attend college.
			Considering the conditions I have, the present university is the best choice for me.
			health and welfare services
			psychological counseling
			teaching with tutoring. learning assistance program
			mentoring service for the adaptation of university Life
			pre-admission program (top-up education)
			various social and cultural events offered by schools
			career and career development assistance program
			scholarship support program
program for improving basic learning ability (mathematics, English, etc.)			
domestic and overseas service program			

2.4. Research Design and Statistical Analysis Method

2.4.1. General Characteristic Analysis

The general characteristics of all the subjects were mainly frequency analysis and technical statistical analysis.

2.4.2. Group Characteristic Analysis

The quality study analysis of all survey subjects' activities to universities immersion and students support conducted T-testing and F-testing.

2.4.3. Analysis of economic assistance program participation and non-participating program group characteristics

The difference in analysis between participation in economic support programs, non-participatory activities, and the quality of student support and the detailed factors of teaching and learning courses was conducted via T-test, and the difference analysis by grade was done via F-test.

2.4.4. Study on the Quality of University Immersion Activity and Student Support: Analysis of the Internal Content of the University

The inter-question internal load carrying value analysis on the study of the quality of university immersion activities and student support was conducted by the Cronbach's alpha coefficient. The package program IBM SPSS Statistics 22.0 was used for all statistical analysis.

3. Research Result

3.1. NASEL Participant Status and General Characteristics

3.1.1. Status of Participants in the Survey

The main subject of the study is the students of the specialized business unit department (medical care management), which received financial support. However, since a control group is needed to compare their immersion into universities and the quality of student support, students from non-economic studies were also included in the study list.

As Table 2. shows, a total of 372 students participated in the survey, of which 302 were financially supported and 70 were non - financed students. With the exception of the missing 38 students, a total of 334 completed surveys were available for the analysis including 290 students in financial support and 44 students in non-financial support.

Table 2: Participation Status in the Survey

Department	Grade	No.	Available survey index	Response rate (%)
medical care management	1	72	67	93.1
	2	78	74	94.9
	3	82	79	96.3
	4	70	70	100.0
	sub Total	302	290	96.0
hotel management and sports management	3	30	15	50.0
	4	40	29	72.5
	sub Total	70	44	62.9
Total		372	334	89.8

3.1.2. General status of survey subjects

The general status of all the students who responded to the survey was given in Table 3. In age, 44.1 percent of those were under the age of 21, with 32.1 percent aged 22-23 and 23.8 percent aged 24 and older. In terms of gender, males numbered 174 with 60 percent, while females numbered 116 with 40 percent.

According to the admission status, 97.6 percent of all students were new students, and only 2.4 percent were transferred. Admission to university was 54.5% for early admissions and 42.8% for regular admissions. Prior to university admission, the average high school grades were 42.8 percent, with the third and fifth graders at 27.9 percent and 16.2 percent.

3.2. Status of the study on the quality of student support and the activities of university entrance for the entire survey

3.2.1. Current status of university immersion activities

The results of the university immersion activity survey show that the responses in all questions are positive on the four-point scale of at least 2.5 points. Students who responded 'yes' and 'very much' to the idea of becoming university and departmental members showed the highest rates with 79.6% (2.82), 81.1% (2.82), respectively, and a positive response rate of about 60%, except for the question of whether the university met expectations and satisfaction with the university.

Table 3: General Characteristics of Survey

Classification	Content			Classification	Content			
	group	no.	Percentage (%)		group	no.	Percentage (%)	
age	under 21 years of age	128	44.1	department	medical care management	290	86.8	
	22 to 23 years old	93	32.1		hotel and sports management	(44)	(13.2)	
	24 years of age or older	69	23.8	grade	1	67	23.1	
gender	female	174	60.0		2	74	25.5	
	male	116	40.0		3	79	27.3	
high school grades rating	1	2	0.7		4	70	24.1	
	2	13	4.5		entrance into a school type	freshman	282	97.6
	3	81	27.9		transfer	8	2.4	
	4	124	42.8		typical type	non-scheduled admission	158	54.4
	5	47	16.2		fixed time	124	42.8	
	6	14	4.8		other	8	2.8	
	7	6	2.1	major	284	97.9		
	8	1	0.3	major complete	major in major + double major	4	1.4	
	9	1	0.3	major + minor	2	0.7		

Table 4: Status of All Survey Subjects in Universities Immersion

(Unit: Number, %)

Classification	Average	S. D.	Hardly	Sometimes	Often	Very often	Total
the idea of becoming a member of the department	2.82	0.562	11 (3.8)	44 (15.2)	222 (76.6)	13 (4.5)	290 (100.0)
the idea of becoming a member of a university	2.82	0.550	8 (2.8)	51 (17.6)	217 (74.8)	14 (4.8)	290 (100.0)
a sense of pride as a member of the department	2.61	0.662	15 (5.2)	96 (33.1)	165 (56.9)	14 (4.8)	290 (100.0)
a sense of pride as a member of a university	2.55	0.706	23 (8.0)	96 (33.2)	157 (54.3)	13 (4.5)	289 (100.0)
This university meets my expectations.	2.41	0.687	26 (9.0)	126 (43.6)	130 (45.0)	7 (2.4)	289 (100.0)
I am satisfied with the decision to attend university now.	2.55	0.675	21 (7.2)	126 (43.6)	130 (45.0)	7 (2.4)	289 (100.0)
The university you are currently attending is the best choice.	2.51	0.731	21 (7.2)	98 (33.8)	162 (55.9)	9 (3.1)	290 (100.0)

3.2.2. Quality of Student Support

The status of the quality of student support is given in Table 5. The survey found that the average of all questions

Table 5: Status of Student Assistance for the Overall Survey

(Unit: Number, %)

Classification	Average	S. D.	Very dissatisfied	Dissatisfaction	Satisfaction	Very satisfied	No experience	No school	Total
health and welfare Service	3.26	0.979	7 (2.4)	37 (12.8)	172 (59.3)	25 (8.6)	47 (16.2)	2 (0.7)	290 (100.0)
Psychologic-al counseling	3.29	1.018	6 (2.1)	41 (14.1)	166 (57.2)	20 (6.9)	55 (19.0)	2 (0.7)	290 (100.0)
teaching and schooling assistance program	3.29	0.860	7 (2.4)	24 (8.3)	169 (58.3)	58 (20.0)	32 (11.0)	0 (0.0)	290 (100.0)
mentoring service	3.24	0.922	10 (3.4)	29 (10.0)	168 (57.9)	46 (15.9)	37 (12.8)	0 (0.0)	290 (100.0)
pre-admission program	3.23	1.104	15 (5.2)	44 (15.2)	148 (51.0)	26 (9.0)	55 (19.0)	2 (0.7)	290 (100.0)
various social and cultural events	3.11	0.893	10 (3.4)	38 (13.1)	184 (63.4)	27 (9.3)	30 (10.3)	1 (0.3)	290 (100.0)
a job/career development program	3.27	0.971	9 (3.1)	34 (11.7)	165 (56.9)	35 (12.1)	47 (16.2)	0 (0.0)	290 (100.0)
scholarship support program	3.09	0.977	17 (5.9)	48 (16.6)	144 (49.7)	54 (18.6)	27 (9.3)	0 (0.0)	290 (100.0)
basic education improvement program	3.24	0.942	8 (2.8)	34 (11.7)	172 (59.3)	34 (11.7)	41 (14.1)	1 (0.3)	290 (100.0)
domestic and foreign service program	3.29	1.096	14 (4.8)	37 (12.8)	154 (53.1)	24 (8.3)	59 (20.3)	2 (0.7)	290 (100.0)

in the quality of student support was more than three points, indicating that overall, students were satisfied with the student support service. In particular, the highest average was 3.29 in psychological counseling, teaching and learning support programs, and domestic and foreign service programs. Here, the health welfare service refers to various illness education related to the student's health, prevention vaccination, and health consultation or examination and welfare refers to various scholarship and social culture programs. Mentoring services refer to personal career guidance, grievance counseling, or career counseling.

3.3. The Characteristics of the Overall Survey Participants' Group-Specific Activities in Universities

3.3.1. The Characteristics of Group-Based University Immersion Activity

Table 6. shows the differences in the group's survey participants' involvement in university. The average of the composition questions of university immersion was shown to be 2.61. The analysis of differences among groups according to the individual characteristics of students showed differences in gender and specialty category characteristics, and no differences between groups were found in the other four characteristics. The average number of male students is higher than that of female students. The average number of medical care management students is higher than that of other students.

Table 6: Study on the Differences in Activities in Universities Immersion by Group

Classification		No.	Average	S. D.	T/F statistics	P Value	Post test
gender	female	174	2.52	0.489	3.697	0.000	-
	male	115	2.73	0.441			
age	21 years old	128	2.61	0.514	1.561	0.212	
	22 to 23 years old	93	2.55	0.429			
	24 years of age or older	69	2.69	0.491			
high school 3 average school rating	1 to 3	97	2.57	0.505	0.515	0.672	
	4	124	2.62	0.443			
	5	47	2.63	0.542			
	6~9	22	2.69	0.493			
typical type	non-scheduled admission	194	2.62	0.459	0.761	0.448	-
	fixed time	90	2.57	0.543			
grade	1	67	2.65	0.507	0.707	0.549	
	2	74	2.57	0.471			
	3	79	2.65	0.441			
	4	70	2.57	0.486			
	medical care management	282	2.77	0.501			
department	hotel and sports management	42	2.61	0.651	1.994	0.047	-

3.3.2. Study on the Quality of Student Support by Group

Table 7 shows the quality characteristics of student support. The average of the quality composition questions for students was high overall at 2.91, with no statistically significant differences in all the individual characteristics of students.

Table 7: Study on the Difference in Quality of Students Support by Group

Classification		No.	Average	S. D.	T/F statistics	P Value	Post test
gender	female	172	2.87	0.463	1.396	0.164	-
	male	109	2.96	0.554			
age	21 years old	125	2.97	0.444	1.779	0.171	
	22 to 23 years old	91	2.86	0.497			
	24 years of age or older	66	2.87	0.595			
high school 3 average school Rating	1 to 3	96	2.90	0.518	0.048	0.986	
	4	121	2.92	0.448			
	5	45	2.92	0.522			
	6~9	20	2.88	0.687			
typical type	non-scheduled admission	189	2.91	0.457	0.297	0.767	-
	fixed time	87	2.89	0.595			
grade	1	64	3.02	0.442	1.905	0.129	1,2,4 2,3,4
	2	72	2.91	0.500			
	3	78	2.82	0.485			
	4	68	2.91	0.564			
	medical care management	290	2.91	0.501			
department	hotel and sports management	44	2.94	0.651	0.343	0.731	-

3.4. Difference in Quality of Student Support and University Immersion by Grade of Students Who Participate in Specialization

3.4.1. Yearly Difference of Students with Specialized Participation

As a result of looking at the year-to-year difference in Table 3.7, the medical care management department students who participated in the project were divided by grade, the criteria for the diagnosis of professor/study capabilities, and details of the teaching/learning capabilities.

The difference analysis between groups of factors was conducted. According to a survey on the criteria for the ability of professors and students to study, there is little difference between university immersion and the quality of student support in the academic year. However, Duncan's post-test results on the quality of student support showed some significant results.

Table 8: Analysis of the Difference Between the Class and the Quality of University Immersion and Student Support among Students in the Specialized Participation Department

Items	Grade	No.	Average	S. D.	F Statistics	P Value	Post-analysis
university immersion	1	67	2.65	0.507	0.707	0.549	
	2	74	2.57	0.471			
	3	79	2.65	0.441			
	4	70	2.57	0.486			
quality of student support	1	64	3.02	0.442	1.905	0.129	1,2,4 2,3,4
	2	72	2.91	0.500			
	3	78	2.82	0.485			
	4	68	2.91	0.564			

3.5. The Differences of University Immersion and Student Support by Students in Specialization

3.5.1. Analysis of the Difference Between Students with Specialized Participation and Non-Participation

Table 3.8 presents differences between characterized participation and non-participation groups. In the 2018 survey, a distinction was made between the participating and non-participating students of the project group and different groups were conducted on the criteria for the diagnosis of teaching and learning capabilities. As a result, there is a significant difference between groups of business students of students belonging to a non-business group, and the average of participating students (2.77) was somewhat higher than non-participating female students (2.61). However, in the quality of student support, non-

participating female students (2.94) had a somewhat higher average than participating students (2.91) but did not show statistically significant results.

Table 9: Analysis of the Difference Between Students with Specialized Participation and Non-Participation

Items	Classification	No.	Average	S. D.	T Statistics	P Value
university immersion	participation	290	2.77	0.501	1.994	0.047
	non-participation	44	2.61	0.651		
the quality of student support	participation	290	2.91	0.501	0.343	0.731
	non-participation	44	2.94	0.651		

3.5.2. Study on the Differences Between Specialized Students and Non-Participating Students in the Teaching and Learning Process

In Table 10, the differences were greatest in three of the eight areas of detailed factors in the teaching and learning process, particularly in the case of in-school student activities, active participation in classes, and higher thinking activities. In the case of in-school student activities, active participation in classes, which is the reason for the high average value of participating students, is that they could be provided various scholarships and mileage benefits through participation in various curricular activities, comparative activities, lectures, and seminars. On the contrary, in the case of higher-order thinking activity, the reason for the high average value of non-participating students is that each student carries out various unconventional thoughts and experiences.

Table 10: Study on the Differences Between Students with Specialized Participation and Non-Participation: Factors of Teaching and Learning Process

Items	Classification	No.	Average	S. D.	T Statistics	P Value
cooperative learning	participation	290	2.32	0.674	1.062	0.289
	non-participation	44	2.43	0.559		
higher-order thinking activity	participation	290	2.16	0.667	2.506	0.013
	non-participation	44	2.43	0.638		
engage actively in classes	participation	290	2.34	0.624	2.910	0.004
	non-participation	44	2.05	0.482		
challenging learning activity	participation	290	1.92	0.496	1.260	0.209
	non-participation	44	2.02	0.514		
global activity experience	participation	290	1.27	0.345	0.280	0.780
	non-participation	44	1.25	0.336		
in-school student activity	participation	290	2.19	0.764	3.461	0.001
	non-participation	44	1.75	0.916		

volunteer activity	participation	290	1.68	0.704	0.377	0.706
	non-participation	44	1.73	0.677		
in-school human relations	participation	290	2.94	0.034	0.328	0.743
	non-participation	44	2.97	0.105		

Next, Table 11 used two variables: 'university immersion' and 'quality of student support' as subordinate variables to verify the effectiveness of participation in the college characterization project in terms of the course. Each question was settled on a four-point recurrent scale (1=nearly, 4=very often). Specific measurement questions and factor loads of the variables dependent on teaching and learning are shown below, and the Cronbach's alpha was very good with 0.860 and 0.913 respectively.

Table 11: Factors and Reliability of the Measuring Questions for the Diagnosis of the Teaching and Learning Capacity

Items	Question.	Factor load capacity	Reliability (Cronbach)
university immersion	the idea of being a member of the department	0.752	0.860
	the idea of being a member of a university	0.793	
	a sense of pride as a member of the department	0.735	
	a sense of pride as a member of a university	0.609	
	This university meets my expectations.	0.745	
	I am satisfied with the decision to attend university now.	0.800	
	considering the academic & financial situation, this university is the best choice.	0.686	
	health and welfare services	0.624	
	psychological counseling	0.685	
	teaching with tutoring. learning assistance program	0.608	
the quality of student support	mentoring service for the adaptation of university life pre-admission program (top-up education)	0.422	0.913
	various social and cultural events offered by schools	0.488	
	career and career development assistance program	0.670	
	scholarship support program	0.688	
	program for improving basic learning ability (mathematics, English, etc.)	0.668	
domestic and overseas service program	0.480	0.540	

4. Discussion and Conclusion

4.1. Discussion

The role of personal and professional development" stated that professional learning is the period of one's growth that consolidates both the experiences of within the class and other formal experiences of outside the class as well as conferences (Parveen et al., 2014).

In many ways, financial motivation in relation to learning outcomes can serve as a stimulus for performance of work as a stimulant to perform certain tasks. Academic motivation is a key determinant of academic performance and deserves closer attention (Linnenbrink & Pintrich, 2002). Financial trends are in many ways forging the directional landscape of higher education in the 21st century (Jacob & Gokbel, 2018). Motivation has also an important influence on a learner's attitude and learning behavior (Hakan & Munire, 2014).

Fundamentally, financial motivation does not always bring positive results to students for learning. Oswald and Backs-Gellner (2014) have suggested that financial incentives are most effective at the beginning of an educational program, when real labor market benefits are in the distant future. According to the standard human capital theory (Becker, 1962), students do so by comparing the present discounted value of the benefits (i.e., expected advantageous labor market outcomes, such as higher future earnings or lower unemployment risk) to the present discounted value of the costs (i.e., direct and indirect costs of exerting learning effort).

In addition, although the Ministry of Education has promoted various financial support projects for universities at the national level over the past decades, there is a tendency for universities to decide the number of specialized universities within the scope of education finance (Kim, 2012), rather than the actual characterization of education-oriented universities, industry-academic cooperation and research-oriented universities at the national level. In view of this, the practical university characterization policy needs to consider whether the nation is pursuing the characterization of voluntary and autonomous bottom-up rather than economic assistance or inducement to universities in a top-down manner, the characteristics appropriately linked to the industrial structure of the community at which universities are located, and the related industries (Lee & Lee, 2015).

The country's economic support program is that universities themselves should be applied as some means for voluntary characterization education. The government is effectively regulating universities by relating financial support to various evaluations and universities that are

following the government recommendations in order to secure financial support (Kim & Park, 2018). This evaluation of the government can be a difficult factor for the university itself to qualify for qualitative education and characterization. In other words, there is a possibility that the educational project will be changed in the sense that the evaluation of the government should have good results from the viewpoint of the university.

The fact that there is little difference between the financial-funded and the non-financial-supported groups has obvious limitations to encompassing the broad notion of quality or excellence in education. In detail, no matter how good and accurate performance indicators are, they are not sufficient to evaluate various aspects of education quality and excellence, as in Shin and Choi's study (2014) that is consistent with previous research. Generally, Alemu and Gordier (2017) showed that the provision of financial services, such as scholarship, was indicated as one of the important determinants of the overall students' perceived service quality. Rewards are not harmful, which is proved by some researches, and there is a certain interrelation between external motivators and task-oriented motivation which is confirmed by the cognitive approach (Jovanovic & Matejevic, 2014; Cameron & Pierce, 1994).

Using the data from the 7th and 8th years of the Korean Education Ending Study, the interaction formed by university students with professors and fellow students was typified, the effect of each type on college immersion and the effect of university level variables were analyzed, and it was demonstrated empirically that social immersion and university immersion had significant relationships (Shin & Choi, 2014). Autonomous motivation, in contrast to controlled motivation and amotivation, should be supported to benefit students with regard to their approaches to learning and well-being since it can promote students' vitality, self-esteem, deep over surface study strategies, and enhanced academic performances (Orsini et al., 2019). Extrinsic incentives, once removed, may crowd out intrinsic motivation on subsequent, similar tasks (List, Livingston, & Neckermann, 2018; Gneezy, Meier, & Rey-Biel, 2011; Fricke, Lechner, & Steinmayr, 2018).

Although learning is financially motivated, students are expected to have a learning effect only if they include autonomy or self-directed learning in addition to financial motivation. Namely, due to the crowding out of intrinsic motivation, the provision of financial incentives may reduce individual performance (Oswald & Backs-Gellner, 2014).

The intertemporal choice of students might be affected by the financial incentives in education, and the financial incentive effect in teaching and learning process is closely related to the time preferences in terms of student's preference to spend in the present over the future.

Individuals have rational expectations and maximize their present discounted value of expected lifetime utility by making annual schooling choices (Kemptner & Tolana, 2018).

4.2. Conclusion

In total, 334 students were surveyed, of whom 290 students were participating in economic support programs and 44 were non-attendance students. The survey period lasted about 10 days, from April 03, 2018 to April 13, 2018 in the university.

According to the results of the survey, there were 174 male students, 60% of all surveyed students, and 116 female students, 40% of all surveyed respectively. In terms of the age, 44.1% are under 21 years old, 32.1% are 22-23 years old, and 23.8% are over 24 years old. By grade, 23.1% of first grade students, 25.5% of second grade students, 27.3% of third grade students, and 24.1% of fourth grade students participated in almost all grade levels.

More specifically, in relation to age, high school academic record, university academic year and gender, the older the active-collaborative learning, and the professor-student interaction, the higher the high school record and university academic year, the higher the male students were than the female students.

The main results of this study are as follows.

1) There is no significant difference in the quality of university immersion and student support between students who participate in the economic support program and those who do not participate.

2) The average of the composition questions of university immersion was 2.61. And the analysis of differences among groups according to the individual characteristics of students showed differences in gender and specialty category characteristics.

3) According to the analysis of the differences between groups on the criteria for the diagnosis of teaching & learning capabilities and the detailed factors of teaching, learning process and performance, there is little difference between students belonging to the business group and those belonging to the non-business group in all categories.

4) The quality of student support survey found that the average of all the questions in the quality of student support was more than three points, indicating that students were satisfied with the student support service in the first half.

5. Limitations of research

University characterization projects are artificially established specialization projects in terms of teaching,

learning process and management. Therefore, the Korean university characterization project mentioned in this study has a limitation that does not include all the contents or courses of the characterization project as a whole. In other words, the specialization project of this research refers to the quality of university immersion and student support, which is part of the criteria for diagnosing teaching and learning skills.

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