

**Abstract**

**Strategic Planning for the Advancement of the  
Teaching-Learning Quality in  
Higher Education(V)**

Jeung Yun Choi  
Eunyoung Kim  
Hyejin Kim  
Hunam Ihm  
Okkyung Choi  
Bo-Keum Choi  
Min-Hee Kim  
Jieun Lee  
Shi-jean Kim

The objective of this study is to investigate and analyze the current state and characteristics of Korean higher education by utilizing data collected on teachers and learners' perceptions and behaviors and to make strategic policy suggestions for the advancement of the teaching–learning quality in higher education. In addition, this study also attempts to provide a comprehensive outlook on the problems and issues of the overall system of teaching–learning in Korean higher education, as this study also investigates two–year junior colleges along with four–year universities in dealing with the issues of teaching–learning in higher education.

This study is the final stage of the 5 year–long study which has been conducted over the last four years. It has taken an approach to expand subjects who participated in the

study year by year. The study started with analyzing the data collected from the participants who consisted of four year university students in the first year and expanded the scope of participants into four year university professors, two-year junior college students, junior college professors year by year. The 5th year study which was conducted in 2017 collected comprehensive data that covered students and professors of four year universities and students and professors of junior colleges about teaching–learning process of higher education institutions (36,000 students who attend 68 four year universities and 2,041 professors who work in 64 four year universities and 12,000 students who attend 28 junior colleges and 607 professors who work at junior colleges).

Using the data collected from this year and the cumulative data collected over the last 4 years, the study provides an overall overview on the current state of teaching–learning of higher education. It analyzed extensive data collected from 200,000 four year university students and more than 6,000 four year university professors, more than 25,000 junior college students on the perceptions and behaviors of teaching–learning of higher education. Important research findings and policy suggestions are as follows.

## Theoretical Background

Chapter 2 presents the theoretical background of this study dealing with two strands of themes, one of which is an overview of studies previously conducted on teaching–learning process of higher education institutions. The literature review provided in Chapter 2 presents how this study, which focuses on developing investigating tools to diagnose and assess teaching–learning process and on collecting and analyzing data, acclaimed its place in the history of research on Korean higher education. This study summarized the process in which how studies on Korean higher education had been planned and conducted by Korea Educational Research Institute and in which context this study has been conducted. The literature review also provided an overview of the studies conducted as a series of the 5 consecutive studies for the last 4 years in order to present

how this study differed from previously conducted studies. Chapter 2 also examined other empirical studies that had been done on teaching–learning process in higher education in order to demonstrate which theoretical background guides the analyses which are introduced in Chapter 3 and 6.

The second theme of Chapter 2 is the development and Institutional Research(IR) and important issues regarding Institutional Research. One important objective of this study along with the investigation and analysis of teaching–learning process is to vitalize the process of assessing teaching–learning competence on a national level and subsequently to support the process of systematically carrying out the assessment of teaching–learning competence on an institutional level. Many international higher education institutions have already some internal organizational offices that carry out research on their own institutions' teaching and learning. Some universities in Korea are interested in institutional research. However, relevant information on institutional research is lacking and some conflict may arise with existing organizational offices in charge of researching teaching–learning of the institutions in terms of role sharing and collaboration. Thus, this research discussed the concept of institutional research, the historical and theoretical background of its development. Several cases of institutional research in several American universities and some important issues were examined regarding institutional research.

### Analysis on teaching-learning process of students at four-year universities

#### Analysis on the current state of teaching-learning process

By using data collected from 2013 to 2017, based on the reference items to assess teaching–learning competence and to investigate important teaching–learning process, an analysis on frequency and intergroup difference was done and the results were comprehensively presented. Based on these findings, some characteristics resulting from teaching–learning experience and some areas that required improvement could be

identified. Major findings are as follows.

Frist, students at four year universities were less exposed to the activities that encourage higher-order thinking, challenging learning, self-directed study, which should be directly connected to their academic performance and students' perception on professor-student interaction has not improved. Secondly, four year university students' satisfaction about classes tends to gradually improve. Especially, the improvement of satisfaction in general education classes is outstanding. In details, the degree of satisfaction in professors' designing the objectives of courses, their delivery of contents, their utilization of resources, their procedures of evaluation tends to be relatively high, but the matters of professors' feedback about learning and stimulating intellectual curiosity still need improving. Thirdly, students responded negatively about their perception on the extent of improvement of their core competence through higher education. In terms of the items regarding analytical/critical thinking, communication skills, knowledge in humanities, half of the respondents responded negatively. In addition, the items regarding some core competences emphasized in the era of the Fourth Industrial Revolution, such as creative thinking, information competence, produced less than 40% of positive responses, which suggests that continuous effort to improve in these areas is necessary by supplementing curricular or extracurricular programs. Fourthly, while satisfaction in student support services seems to have improved, Students have not still used support services as much as they should over the last several years. Fifthly, the extent of frequency of exposure to extracurricular experiences which had little to do with classes was low, such as student interaction, global learning, study/learning activities, service/volunteer activities. For instance, the response of 'no experience' in the items such as 'the number of books read as course-related material', 'the number of books read regardless of courses taken', 'the number of papers or articles that exceeded 15 pages' has been on the rise by the year. This indicates that learning support that stimulates students intellectually in various areas is necessary. Lastly, there is difference

in student experience and perception regarding teaching–learning process and outcomes depending on the structural characteristics of four–year universities such as their locations, establishments, and sizes. In addition, factors regarding individual students' backgrounds have relationship with the difference in teaching–learning process and outcomes and the relation seemed to be relatively more salient in terms of major fields of study, parents' educational background, year of study, universities, and departmental preference.

#### **▣ Analysis on factors affecting teaching-learning process and outcomes**

The purpose to analyze the factors affecting teaching–learning process and outcomes is (1) to identify what constitutes desirable educational experiences that facilitate the improvement of learning outcomes of teaching–learning and (2) to identify factors that explain intergroup differences of teaching–learning process and outcomes among higher education institutions, focusing on universities' internal organizational contexts and characteristics, and university climates that are portrayed especially through professors' perception and behaviors. The results imply positive effects of activities that enhance higher–order thinking skills, interaction with professors, active participation in classes, challenging learning and experiences of diversity and interaction with peers have static correlation with the outcomes of teaching–learning process. Among characteristics of universities, professors' satisfaction has static correlation with acquiring knowledge in major fields of study and analytical/critical thinking even after controlling individual differences and universities' differences. Additionally, it is proved that the effort to improve university curriculum from professors' perspectives has positive effect on their engagement in universities.

## Analysis on teaching-learning process of professors at four-year universities

### □ Analysis on the current state of teaching-research activities and the difference in perception on teaching-learning process among students and professors

Some important findings about the analysis on the current state of teaching-research activities and the difference in perception on teaching–learning process among students and professors are as follows. First, the results of the professors' surveys demonstrated that their research outcomes are more highly acknowledged than their teaching performance within the institutions. Secondly, while professors responded positively to the establishment of the objectives of education on a departmental level and suitability of curriculum, they responded somewhat negatively to the degree of their colleagues' participation in the process of improving curriculum. Thirdly, professors tended to invest more time in the order of teaching undergraduate students, research, and preparing for undergraduate classes. They seemed to spend less time advising students, improving classes and providing feedback in students' learning. Fourthly, in terms of major classes and general education classes, professors evaluated their performance highly in the areas of fair management of evaluation, explanation related to their knowledge and experience, presentation of explicit course objectives and expectations. But they reported relative low performance in the areas of providing meaningful feedback and providing opportunities to apply the contents of learning. In addition, there was still room for improvement in teaching and evaluation methods, even though the methods have been diverse. Fifthly, in terms of analyzing differences in perception between professors and students, it has been once again confirmed that the gap in their perception toward professor–student interaction still existed. Moreover, with regard to active and collaborative learning, clear difference existed between the degree of importance which professors think and students' actual experiences. On the other hand,

while there was still difference between professors' performance and students' satisfaction in items for investigating satisfaction in major and general education classes, the gap between professors' performance and students' satisfaction tended to be gradually reduced. Finally, clear difference in perceiving teaching-learning process and performance has been observed depending on professors' areas of specialty. There was difference in perceiving the current state of professors' activities and teaching-learning process depending on individual background characteristics such as their gender, educational experience, tenure/non-tenure and their relative weight on education and research activities.

#### **□ Investigating factors that affect professors' education-related activities with a focus on professors' research productivity**

Theoretically, four-year universities aim to have both education and research developing harmoniously. However, in reality, education and research could be placed in conflict in terms of the distribution of resources and policy priorities. In paying attention to the problem in educational practice, factors affecting professors' education activities were investigated, focusing on their research productivity. Institutional differences did not seem to have a significant effect and professors' research productivity had a negative effect on their education activities. Looking more closely, lower ranked professors had classes that required higher level of learning management. Professors who perceived more organic relationship between education and research and professors who had more interaction with students were more actively engaged in educational activities. Among the factors related to their institutions, "the institutions' perception on educational support" negatively influenced education activities while "compatibility with their departments" and "perception on students who belong to their departments" had a static effect. The result of analyzing the effect of research productivity on education activities demonstrated some negative effect (publishing in international academic journals) and static effect (publishing in domestic academic journals). In fact, considering the time and effort that professors

took for their articles to be published internationally, the limited amount of time allotted for research and education should be adjusted even though there is static relationship between research productivity and the quality of education. Therefore, it might be necessary to discuss the matter of publishing research in international academic journals, which is imposed on professors from various perspectives.

## Analysis on teaching-learning process of students at junior colleges

### □ Analysis on the current state of teaching-learning process

The second main survey was conducted following the last year's first main survey on teaching–learning process of students at junior colleges. Thus, based on the results of two consecutive years' surveys, analysis on frequency and intergroup difference was done on the items of assessing teaching–learning competence and major items of teaching–learning process and the results were comprehensively presented. Major findings are as follows.

First, low frequency was found on learning experiences to enhance higher–order thinking, collaborative learning and study activities and junior college students had little interaction with professors as four–year college students did. Moreover, junior college students did not actively participate in rigorous learning activities which would help to improve their academic performance. The degree of participation in the activities such as reading, writing, and studying activities which were not required in classes was very low. Secondly, the degree of improvement in core competence through higher education was not relatively high. Problem–solving skills, acquiring knowledge in their major fields of study, self–discipline which mostly had positive responses, produced neutral results. Analytical and critical thinking skills, communication skills, knowledge of humanities, writing, and basic statistics skills were found to be somewhat low in terms of the degree of improvement through higher education. Thirdly, junior college students expressed

overall satisfaction in their major and field-focused classes. 8 or 9 out of 10 respondents answered positively on the satisfaction items. Fourthly, junior college students had positive perception on professors' field-centered classes and highly positive perception on the suitability on their majors along with professors' field-centered approach is considered an important strength of junior colleges. Fifthly, the degree of satisfaction on student services is relatively high among junior college students. However, 40 to 50 percent of the respondents marked that they did not use student services, which implies that proper attention to this matter on the institutional level is required. Sixthly, students' self-evaluation on basic learning ability was high, but their effort to raise basic learning ability and adequate institutional support seemed to be insufficient. Seventhly, analysis on intergroup difference in teaching-learning process and outcomes produced complicated results in terms of the difference in students' experience and perception on teaching-learning process and outcomes depending on institutions' location and size (institutions' structural features). Lastly, parents' educational background, the head of family factor, the duration of enrollment, and students' major field of study explained the difference in experience and perception on teaching-learning process.

#### **□ Analysis on factors affecting teaching-learning process and its outcomes**

An analysis on factors affecting teaching-learning process and outcomes was done, utilizing the collected data from junior college students' teaching-learning process and professors' survey results. In analyzing factors, this study identified individual characteristics affecting six dependent variables that control teaching-learning outcomes in the cognitive and affective areas, such as the acquisition of major knowledge, technology, work ethics, engagement in college life. It also investigated college-specific features related to teaching-learning process and outcomes, utilizing many different variables, such as participation in government-supported projects, professors' perception on institutional effort to improve college education, professors' perception on their students, and the degree of professors' engagement in college organization, which could

portray their college climate. Major findings are as follows. First, the factors traditionally affecting teaching-learning process such as activities that strengthen higher-order thinking and interaction with professors had a positive effect on teaching-learning outcomes in the context of junior colleges. Professors' field-centered education has a positive effect on teaching-learning outcomes. Secondly, intercollege difference in teaching-learning process and outcomes was insignificant. A multi-model analysis separating individual effect and college-level effect showed that most outcomes are accounted for by individual student differences within institutions, demonstrating less than 2 % intercollege variance in teaching-learning outcomes. Thirdly, feature variables applied in the model did not account for intercollege difference. Difference in teaching-learning outcomes was not accounted for by variables related to college climate such as professors' perception on institutional effort to improve college education, professors' perception on their students and the degree of professors' individual engagement in college organization and it was found that there is no correlation between teaching-learning outcomes and institutional participation in government-supported projects.

### Analysis on teaching-learning process of junior college professors

#### **▣ Analysis on the current state of education-research activities and difference in professors' and students' perception on teaching-learning process**

607 professors, who work in 27 junior colleges participated in the main survey conducted for the first time this year. Major findings are as follows. First, while professors at junior colleges responded positively to institutional support for professors' activities, students' career paths, and improving teaching methods, they acknowledged that providing adequate incentives for professors' performance was not sufficient. Secondly, professors at junior colleges responded very positively to the departmental

establishment of the objectives of education and suitability of curriculum, their colleagues' participation in the improvement of curriculum and individual compatibility with their departments. Thirdly, junior college professors invested their time in the order of teaching classes, preparing for classes, and administrative activities within their institutions, which indicates that they invested more time in direct and indirect educational activities. Among the modes of evaluation, essays were most frequently used and alternative modes of evaluation tried at junior colleges were not used as much. Moreover, among the modes of teaching, lecturing theories and field practice were most frequently used, which indicates that an attempt to diversify the modes of teaching and evaluation is needed. Fourthly, analysis on intergroup difference in perception and experience of teaching–learning process showed that there was significant difference between the perceived importance of active, collaborative and challenging activities among professors and that there was considerable gap between professors' and students' perception on learning outcomes. In contrast, there was little difference between professors' degree of execution and students' satisfaction in the items measuring satisfaction in major and field classes. Fifthly, there was not apparent difference in professors' perception on teaching–learning process and activities depending on institutions' structural characteristics in terms of professors' perception and activities depending on background variables. Professors' different perception on teaching–learning process depending on gender, major fields of study, and positions did not show any particular tendency. Rather, professors who have worked for a shorter period of time tended to be more actively engaged in professor–student interaction, activities enhancing higher-order thinking and designing and management of major classes and responded positively to the importance of core competence.

### **□ Investigation of individual and institutional characteristics affecting professors' engagement in organization**

Teachers' engagement in organization is known to have a positive effect on teaching–learning process and outcomes. Considering reality that junior college professors easily change their workplace, investigating factors affecting junior professors' degree of engagement in organization might provide some practical implications about the ways in which junior colleges recruit competent and talented human resources and retain them and they can provide environment in which professors could be devoted to education and research. The findings of analysis on individual and institutional features affecting professors' degree of engagement in organization are as follows. First, intercollege variance was 10.3%, which indicates that there is significant intercollege difference. Among individual characteristics, age, interaction with students, and positive perception on institutional and departmental effort to improve college education seem to have a positive effect on professors' engagement in organization. In addition, interaction with students, professors' perception on their institutions and department and their evaluation of students' level of academic achievement and readiness for learning have static relationship with professors' engagement in organization. Among institutional characteristics, it was confirmed that the size of institutions has static relationship with professors' engagement in organization. It seems to have further need for investigating the relationship between professors' degree of engagement in organization and strengths that larger institutions could have in structural aspects such as financial stability, structural administrative system and performance compensation system including incentives and the diversity of departments and student demographics, the expansion of research subjects through interdisciplinary interaction.

**The establishment and utilization of the system to assess institutional capacity of teaching-learning at colleges and universities**

The establishment and utilization of the system to assess teaching–learning competence is the other important aspect of this study along with presenting how to identify the problems of teaching–learning and how to improve the system. However, it came to a realization that Korean higher education institutions still lack the understanding in setting strategies about assessing capacity of teaching–learning which should be evidence–based while working with Korean higher education administrators for the last four years. Thus, much valuable information was presented, which helps to establish the system to assess capacity of teaching–learning. First, the background as to why the establishment of the system to assess teaching–learning competence was necessary was explained. Next, the concepts of four components of the system such as infrastructure, execution, analysis and utilization and feedback were explained and the four stages of development of establishing the system, which centers around each component were presented, which will help universities and colleges strategically position themselves for the direction of their own development according to the institutions' conditions and characteristics. Opinions from the field about what kind of institutional effort to establish the system to assess teaching–learning competence should be made were reflected through in–depth interviews with administrators whose institutions were participants of this study. Some specific cases about why they came to decide to participate in the study, how they recruited more participants, the department in charge of research, planning research, the execution of research, some methods of analysis, and the utilization of research findings and feedback were collected. Based on the collected data, some suggestions to consider when the institutions need to establish the system to assess teaching–learning competence were made for higher education institutions and some policy implications including how to support institutions' effort about the establishment and operation of the system to assess teaching–learning competence were made for the government.

## Policy suggestions to improve the quality of teaching-learning of higher education institutions.

In Chapter 8, some important policy suggestions were made to improve the quality of teaching–learning in higher education. According to the two themes of the study, policy suggestions to improve the quality of teaching–learning practically were made and policy suggestions to establish the system to assess teaching–learning competence and the system of feedback were also presented.

### ▣ Policy suggestions for practical improvement of teaching-learning

Some policy suggestions for individual higher education institutions are as follows; 1) developing programs specialized in strengthening core competence; 2) encouraging active, collaborative, and challenging learning activities and providing extracurricular learning opportunities; 3) designing programs to improve effective professor–student interaction; 4) finding the ways in which student supporting services are effectively operated and used; 5) establishing the tailored system to support teaching–learning process; 6) refining the ways to support professors' teaching activities; 7) transforming the role of teaching–learning development center; 8) establishing the strategies and supporting system to improve the outcomes of teaching–learning of junior college students based on basic skills for jobs.

Next, policy suggestions for government and the system of higher education are as follows; 9) more discussion on research about diversification of professors' roles based on their employment stability; 10) expanding financial support focusing on strengthening core competence of higher education.

□ Policy suggestions for the establishment of the system to assess teaching-learning competence and feedback

Some policy suggestions for individual institutions are as follows; 1) it is necessary for institutional members to make efforts to transform their perception on establishing the system to assess teaching–learning competence on a strategic level; 2) strategic positioning of institutions based on their identified stage of development of the system of teaching–learning competence, reflecting institutions' conditions and characteristics; 3) introducing an organization in charge of managing and utilizing institutional information and data modeling after Institutional Research; 4) professionalizing the organization in charge of carrying out the assessment of teaching–learning competence; 5) expanding the usage of the collected data on the institutional level.

Finally, some policy suggestions for the government and the system of Korean higher education are as follows; 6) providing survey and analysis services tailored toward individual institutions; 7) the development and distribution of NASEL reports and standardized analysis manuals; 8) the development of the research system for NASEL and NAFET; 9) expanding the usage of NASEL and NAFET as a way to manage the educational outcomes of government projects that provide financial support for higher education institutions; 10) establishing consulting organizations that objectively and professionally support the assessment process of teaching–learning competence.

**Keyword :** teaching-learning process, learning outcomes, college impact, student engagement, institutional capacity of teaching and learning, university professor, students at junior college, junior college professors