

Understanding Teaching Consulting

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Abstract — This report is written for experts who learn consulting for the first time. It is comprised of basic concepts, procedures, methods, and some notes on consulting. Teaching consulting is not about evaluating the quality of the professor's lecture. It is about helping the professor evaluate his own lecture and self-reflection. Hence the report contains basic contents about the things that consultants must do.

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Introduction

Currently, in Korea, teaching consulting is a core program of Faculty Development (FD). The significance of the FD program has been emphasized throughout policies such as the “lecture evaluation system” of the late 1990s, government's financial programs to strengthen college education after the year 2000, and the founding of the Center for Teaching and Learning in the early 2000s.

However, the development of the FD program not go smoothly. Lectures were considered to be the teacher's personal domains and it was not easy to evaluate the quality of lectures which given by those who were leading experts in their own fields. Therefore, the early FD program progressed based on individual lectures, and developed gradually. It was also diversified to encompass teachers generally, including newly appointed professors, and potential professors (doctoral students). Lately, the number of ‘small group communities,’ meetings of teachers who are interested in education, is increasing. They discuss teaching methods. In addition, one-on-one

specialized consulting is being increasing. Many colleges in Korea try to increase the number of expert consultants. However, due to a lack of experts they have difficulty doing so. Although most of the professors in charge of consulting specialize in educational technology, it is difficult for them to consult regarding other teachers' lectures based only on their knowledge of teaching methods and teaching experience. Thus, reeducation of expert consultants is needed.

For this reason, Seoul National University tried to develop a professional teaching consulting process, first in 2002, and then from 2007, they created an autonomous program and now supply this education program for college consulting experts to all colleges in Korea. In 2012, the Korean Educational Consulting Association was established and specialty improvement of teaching consulting and research and development became a significant subject of research. Teaching consulting is not about evaluating the quality of a teacher's lecture. It is about helping the teacher evaluate his or her own lecture and self-reflection. Hence, this paper discusses the basic concepts of the things that consultants must do.

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1. Concept of Teaching Consulting

Teaching consulting is a cooperative problem-solving procedure between the teacher and expert colleagues for the sake of class improvement. It is suggested to be the most effective way to improve the class in practice (Min & Yoon 2012). Teaching consulting supports the professional development of the teacher as it enables the teacher to examine the knowledge related to the subject, technique, and attitudes (Fry et al. 2005; Choen 2008). In addition, it is a means for experienced teachers to consult with their colleagues in order to help them to improve their classes (Lee 2012).

Teaching consulting is a method that expedites introspection about one's class and, based on this, it is a method that makes one reconsider one's competence as a teacher. In other words, it is not a passive procedure via which the teacher gets guidance, it is an active procedure by which the teacher notifies the consultant about the problems he or she faces, and gets counseling to solve them. We can say teaching consulting, not instruction supervision, is done only when the teacher freely asks questions and seeks solutions for problems.

2. Expected Effect of Teaching Consulting

2.1 Observation of Teaching Behavior

The first step of teaching consulting, which is based on audiovisual recording of a class (hereafter, for convenience, simply referred to as "filming" or "recording") is observation of the teaching behavior. The teacher who wants to improve the class must observe his or her own characteristic behavior by observing the film of the class to analyze strong points and weak points and develop strategies for improving the instruction.

2.2 Understanding Learning Activity

The teacher can check interactions between himself and the learners through concrete class scenes while examining learning activities connected to teaching behavior (Min & Yoon 2012). By observing detailed behaviors, which is impossible during the class, the teacher can judge whether the general flow of the class and the learners' learning behavior shows connectivity.

The instructor can check how the teaching behavior affects learners, and how the teacher's explanations and questions are dealt with by the learners. Also, by discerning the general characteristics of the learning activities, the teacher can determine whether the desired learning takes place. By means of this procedure, the teacher can understand education from the side of the learner and understand the learners themselves.

2.3 Self-examination and Exploration of Practical Class Strategies

People in charge of teaching must have not only specialty knowledge about the subject but also specialty knowledge about teaching itself. An expert is a person who improves his own practical knowledge through continuous self-examination. Teaching consulting, which is done in order to enhance the professionalism of teaching behavior, is also an important method of self-examination. Concepts such as the "action research," emphasized by Carr and Kemmis (1986: 162~174) or the "reflection-in-action" of Schön (1983: 49~69) also emphasize practicality, which is achieved via the process of reflection and deliberation. Schön states that 'reflection-in-action' is a virtue of experts. In this sense, an expert is a person who is capable of enhancing his or her practical knowledge through continual self-reflection. When an individual faces a problematic situation, 'reflection-in-action' awakens the individual's senses, leads to introspection and leads to altered behavior.

With teaching consulting, the instructor can understand how the learning activities are perceived, and what kinds of behaviors he or she shows in the situation based on data provided by the consultant. Meanwhile, in the process of seeking a method to improve the class, the teacher can create a foundation that makes it possible to design and practice his own teaching strategy. In other words, reflection about the teaching technique becomes a starting point to form and develop practical knowledge related to the class. As one experiences the opportunity to self-reflect, teaching consulting data is more effective than if it is provided as isolated information.

3. Procedure for Teaching Consulting

According to which subject or related research is

being introduced, the procedure of teaching consulting is introduced differently. When a teacher recognizes problems in the class and requests advice, the consultant identifies the problems self-reflection data or an interview. Then the consultant diagnoses the performance level of a teacher by collecting and analyzing teaching observation data and survey data. Based on the data, the consulting proceeds via a serial problem-solving process that suggests an appropriate improvement plan to the teacher. However, unlike in other countries, teaching consulting in Korea is more likely to be one-time procedure. Therefore there are some limitations in determining the effect on problem solving. To sum up, the procedure of teaching consulting can be explained as follows: Teaching consulting request → filming of the class and observation → class analysis → consulting → later activities.

3.1 Application and Investigation Request

- Explain the characteristics and necessity of the teaching consulting program
- Introduce the method and procedure for consulting
- Suggest the expected effect and result of consulting: Student survey report, teaching analysis report
- Determine schedule: schedule for filming of the class and subsequent consulting schedule
- Notification of pre-demand investigation before filming and investigation (e-mail)

3.2 Filming of Class and Observation

After finalizing all the preparations through the pre-request and demand for an investigation, the consultant observes and films the relevant class. For a consultant to film and observe a class, the following activities take place.

- 1) Preparation and filming: Camera—ready 10 minutes before the class begins
- 2) Class observation and filming: Proceed with recording management of the class hour and space while making a teaching behavior checklist. Class observation that is conducted through filming of a class has the advantage that it makes it easy to understand the actual class atmosphere.
- 3) Student Survey: When the class ends, the teaching consulting manager conducts a survey or interviews

with students. Student feedback clarifies the students' opinions about the class. The survey is conducted as soon after the class as possible. When conducting the survey, the survey manager does it directly, and assures the respondents' anonymity. It is better to have the teacher leave the classroom during the survey.

3.3 Class Analysis

Class analysis is a formal step to develop data to use in the next step, consulting an expert. The consultant gathers various reports, the recorded data, observation record, and student feedback data. Based upon these data, the consultant analyzes the teaching characteristics, and suggests what can be improved.

3.4 Consulting

In the consulting step, the teacher and consultant meet and share their opinions about the class's characteristics. Discussion progresses based on the analysis report and the film data that are prepared in the previous step.

- 1) Rapport formation: relaxed greetings; inquiry about feelings during filming
- 2) Explain the effects of teaching consulting and observation standard
- 3) Watch film
- 4) Self-evaluation of teaching
- 5) Present class analysis data: student survey
- 6) Consulting: utilize questions to help the teacher with self-rating

① Ask questions about teaching problems raised in the pre-survey by the teacher.

Prior to the teaching consulting, the consultant asks the teacher the reason why he pointed out some problems, and the strong and weak points of his teaching.

② Inquire about the feelings of the teacher after watching the film of the class.

The consultant and teacher watch part of the recording of the class together. After that, the consultant asks the teacher to make a teaching observation checklist. The consultant asks what the teacher observed and found out about his class, and asks why certain problems were rated as large or small.

③ Questions about the class analysis data by students

The consultant compares and asks about the relative distribution of the students' evaluation score for each question. Then the consultant asks the teacher to speculate about the reasons for the evaluation, and to compare free answer items (good points, suggestions) in the student survey and lets the teacher interpret the results.

④ Arrangement and explanation about various class analysis data

The consultant arranges and summarizes objective information from the various class analysis data such as the class hour application table, interaction record table, and space application table. Then the consultant explains the purposes of those materials. The consultant asks how the teacher felt about the various data, and listens to the teacher's opinions.

⑤ Questions about the teaching situation other than the filming of the class.

The consultant asks the about differences among the filmed class, general teaching situation, and different school years, classes, school hours, etc. The consultant also asks about the distinctiveness of the teaching atmosphere, content, and methodology on filmed class days. Then the consultant determines if there are differences between the days that are filmed or observed and the usual teaching. If there are differences, the consultant listens to the teacher's explanation about the usual teaching method. Through this process, the consultant and teacher can discuss the teaching problems that occur in the usual teaching situation.

⑥ Combined arrangements and suggestions

The consultant combines, arranges and summarizes all the data obtained throughout the whole process. Meanwhile, the consultant and teacher discuss problems, the characteristics of the teaching style and those things that can be improve. As there will have been many questions and explanations about the teaching style, the consultant and the teacher can determine what the essential problem is. They can then propose improvements focusing on the core problem.

3.5 Activities after Consulting

Thereafter, the consultant should help the teacher carry out the proposed agenda. The consultant can send materials about improvements or can guide programs for strengthening the teaching capability. The consultant can also suggest that the teacher participate in teaching consulting periodically to monitor the teaching.

- E-mail after the end of consulting
- Materials and program guide
- Conduct post-consultation survey
- Promote later consulting

4. Preparation for Teaching Consulting: Notes for Teaching Consulting

During teaching-consulting sessions, we can meet many teachers from various fields who have various problems. Therefore, one must be aware that appropriate suggestions for the various fields may differ. Especially in the case of a novice educationalist about to start consulting, there may be difficulty due to the lack of experience in teaching methods. However, teaching problems that are raised during the teaching consulting basically have commonality because of the characteristics of the educational environment in Korea. Therefore, if one thoroughly analyzes the data on the issues education, there is no great difficulty in carrying out consulting. Thus, we should determine how to analyze pending educational issues and prepare evidentiary materials that are important for teaching consulting.

4.1 Analyzing Common Issues in Education

Consulting should begin by analyzing the educational issues in each society. Without analyzing the current general problems of colleges in Korea, there cannot be good consulting. the following are common characteristics that can influence teaching.

- Recent educational environment and main problems of colleges: Changes in students' characteristics due to the changes the entrance examination method, gaps in basic academic skills among students within the same class, lack of study by students, problems of employment-centered college education, etc.
- Teaching problems raised in the subject, or in the major field: lack of general education, excessive contents, lack of academic skills in mathematics, lack of

students' participation, etc.

- Educational problems of relevant college: influences derived from the level of students, and entrance method.
- General problems of each teaching method: the issues to consider when using the lecture method or the issues to consider when using the seminar or discussion method
- Common characteristics of students who participate in the relevant class: grade, gender, basic academic skills, etc.

4.2 Preparing Evidentiary Material

Step 1: Prepare materials that can objectify the actual class

① Filming of class

- Applications: 'Table of class' time and 'Interaction record table.' These are good for comprehending how the introduction, middle, and finishing activities are carried out, how the teacher utilizes the class time, and

for determining the characteristics of teaching progress. Moreover, the consultant can record teacher-student/student-student questions and answers, and discussions to see how they take place and the various reactions (Table 1).

- Space application record table (optional):

The consultant diagrams the observed data about the teacher's use of space during the class. This can be helpful for understanding interactions between the teacher and students.

② Analysis table of class progress and class attributes

The consultant analyzes and documents the teaching based on the filming of the class, the observation log' and various record tables. This is the final stage of preparation for qualitative teaching consulting. In this table, the consultant presents the standard for teaching analysis, and records final comprehensive observations. The consultant also notes strong points and makes suggestions about the class based on these final observations. (Table 2)

시각	주요 교수활동 & 체크 사항	시각	질의응답 (교수-교 / 학생-학)	PPT	비고
00:00					
05:00					
05:01					
10:00					
10:01					
15:00					
15:01					
20:00					
20:01					
25:00					
25:01					
29:10					
30:01					

Table 1. 'Table of management of class time & space' (Min et al. 2012)

Table 2. Consultant documents—Class analysis form (Min et al. 2012)

1. Teaching methods/Media in the class
2. The opinion of the teacher (Analysis of pre-survey of teacher)
3. Student's opinions (Analysis of student survey)
4. Characteristics of the class
 - 1) Process of the class (activities of introduction-middle-finishing)
 - 2) Teacher-student interaction
 - 3) Verbal and nonverbal communication skills
 - 4) Media utilized
 - 5) Other.
5. Suggestions for teaching
 - 1) Good points of the class
 - 2) Points that need to be improved

Step 2: Prepare materials that make the teacher think about the educational meaning of the class.

- ① Student survey analysis
- ② Pre-questionnaire for teacher
- ③ Comparative analysis of student survey and teacher survey

Step 3: Prepare data that help the teacher decide the direction of improvement

- ① Research data about general educational environment
- ② Basic teaching methodologies that help solve methodological problems

It is more helpful to prepare realistic, concrete, and simple data that can be applied to a real class. It is not good to submit excessive data that are likely to confuse the situation. Simple and concrete sources are better.

4.3 Design Strategies for Improving Instruction

The consultant should consider various technical points when presenting strategies for improvement.

1) Begin with the teacher's problem recognition

As teaching consulting is a process of self-reflection, the beginning point of the teaching consulting should be the problem recognition by the teacher. Every educational solution should focus on the problems that the teacher recognizes.

2) Approach with multifaceted analysis

It is true that the teacher's self-rating is essential for teaching consulting but rating the class cannot be completed only with self-rating. There are limitations to a teacher's ability to objectify his or her own class. There are research results indicating that teachers rate their teaching capability more positively than students

do. For this reason, in the case of mutual valuations by colleagues, the consultant should utilize multifaceted analysis.

For the multifaceted analysis, the consultant should establish various routes for sources.

- Collect various data
- Arrange commonalities between sources and make suggestions
- Determine discrepant contents, and opinions between sources, and the reasons for discrepancies. The consultant also evaluates the significance of observed teaching behaviors and judges the educational meaning of each behavior.

3) Utilize student feedback analysis

Students' feedback with regard to the class is an important source for the teacher to check the educational outcome, as it makes it possible to understand what students learn in the class. Though such feedback cannot measure the educational outcome completely, it is worthwhile in many senses.

4) Focus on learning

This is the most important factor for deciding the class improvement strategy. Class improvement is not achieved by a simple change of teaching behavior. It should focus on how to solve the learning problems of students that result from a particular teacher's behavior. The class improvement strategy should be established based on 'how the learning progresses' not 'how the teacher teaches.'

- Does the teacher understand the learners' personal learning conditions?
- Are there considerations about the level of difficulty? Does the teacher deliver the content at an appropriate speed?

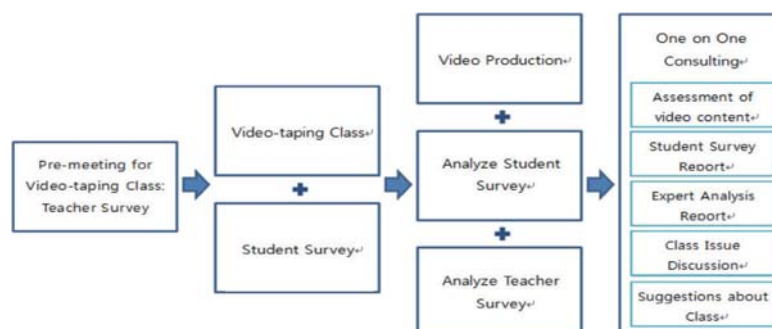


Figure 1. Filming of class and consulting process

- Is there organization with a summary? Are there studying evaluation activities for the sake of the students' understanding?
- Is the teacher attuned to the students' questions and problems?
- Is there appropriate feedback on exams and assignments?

5) Collect cases of good classes and use them as sources.

In order to become an expert teaching professors, personal effort alone is difficult to achieve

It is achieved via communal activity. Sourcebooks that contain various case studies of instructional development and coworkers' experiences are helpful.

provides ideas to improve teaching as it shows the substance of the teaching itself and problems with it objectively. Recording the teaching provides an opportunity for a teacher to observe his or her own teaching behavior realistically. It also has the advantage of promoting improvement of teaching ability as it allows the consultant to provide advice on a case-by-case basis.

- 2) This program allows a teacher to reflect on the teaching behavior and fulfill his or her role as an educator successfully as a result of its systematic supporting activity. It is valued as the most effective program for supporting reflection on teaching behavior and efficacy.

5. Cases at Seoul National University

5.1 Necessity for Filming of Classes and Consulting

- 1) Teaching analysis on the basis of filming of classes

5.2 Contents of Filming of Class and Consulting

Filming of the class proceeds in three forms (Figure 1, 2)

- ① Making a film record of the class: the consultant supplies a recording of the class and a checklist for



Figure 2. Example of Process

Table 3. Current Situation of Consulting (2012)

		Consulting and Microteaching	Engineering College Teaching Method CLASS
Subjects		Newly appointed professors, general professors and instructors	Screening criteria for receiving for tenured professor
Content		Recording of classes, self-diagnosis, expert analysis and consulting	Filming class, self-diagnosis, expert analysis and consulting, meeting with program participants
Effect		Inspect study progress and attitude of the teacher, examine student satisfaction, and provide sources related to teaching methods.	
Number of participants	2009	56	11
	2010	57	9
	2011	62	7
	2012	61	11

self analysis.

- ② The consultant analyzes students' opinions about the class and provides advice.
- ③ Microteaching workshop: throughout the small group meeting, the consultant and teacher discuss the content of the film and the class.

5.3 Current Situation of Filming of Classes and Consulting

At present, the process of filming classes is progressing targeting voluntary applicants and teachers in the Department of Engineering, with 60-70 professors and instructors participating in the program annually (Table 3).

5.4 Reviews from Professors who Participated in the Program

I received my first audiovisual recording of a class and consultation in 2009. The program showed me many helpful teaching methods such as the importance of interaction with students through a question period, tips about how to determine the level of understanding of students in the class, and tips on how to summarize the lecture in five minutes at the beginning of the class. In 2010, I repeated the process for the second time. I got a very good assessment from professor Min, as I utilized methods I learned from the first consultation well. Thanks to the CTL teaching consulting, I was honored to win the Superb Lecture Award from the engineering department two years in a row, in 2009 and 2010.

(Professor Hong, Department of Electrical Engineering and Computer Science)

I made several improvements after the first recording of my class and evaluation, and they really worked. I thought I had a very excellent teaching methods. So I think it is very meaningful to evaluate a class from the perspective of the students.

(Professor Lee, Department of Construction Engineering)

Teaching consulting helped me a lot. When I really watched my teaching, I found out it was very boring. After I looked at my teaching, I thought I needed to improve it.

(Professor Lee, Department of Electrical Engineering and Computer Science)

After I watched the recording of my class, I realized that my pronunciation was not accurate and my speaking speed was fast. I thought that it was difficult for students to follow. I think it would be very good to film my class again next semester to check whether I am doing better.

(Professor Seo, Department of Material Engineering)

Conclusion

There are many things that we need to work on in order to make teaching consulting an essential program for FD in colleges. We need a system that examines the effects of teaching consulting consistently and retraining of consultants. Particularly, in order to train expert consultants, we need to have consistent training and briefing sessions in which we share consulting cases. Just as good education is hard to achieve only with a single teacher, good consulting is not achieved by a single consultant's ability. We need a system for self-rating as consultants, mutual assessments among consultants, sharing of cases, and theoretical and practical verification of the effectiveness of the consulting.

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