

Best Practices for Online Course Development in Distance University Settings: Insights from Instructors' Experiences*

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<Abstract>

This study investigates effective teaching practices for online courses in open and distance university settings, given the increasing demand for online and hybrid learning. Using a case study approach at K Distance University, the study identifies three major themes: course design and development, course production and filming, and course management and operation. Excellent lectures were selected, and interviews with instructors were conducted to explore these themes in detail. Analysis of the data revealed the significance of well-designed course content, active collaboration among lecturers and producers during course production, and encouragement of student-instructor interaction. Recommendations are made to help develop quality online courses that promote effective teaching practices and active learning for student success in online education.

- **Key words:** effectiveness of online teaching, online course development, online learning success, instructors' experiences, distance university

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I. Introduction

Higher education is in the midst of rapid change with increasing demand for online and hybrid learning. These trends have accelerated dramatically since the recent pandemic outbreak, driven by the growing number of remote learners. As more and more higher education institutions are quickly converting many of their programs into online modes, there is a need to seek out effective and strategic methods in online instruction to ensure quality education for students' online learning success.

Compared to that of face-to-face lectures, online courses embraced an environment in which it is hard to promote interaction and engagement of students. Students are not often strongly motivated by simply acquiring facts and information by listening to one-way online lectures (Kim & Cho, 2018). According to engagement theory, students experience meaningful involvement through interactive tasks and activities, which thereby promote their authentic focus in the process of learning (Kearsley & Shneiderman, 1998).

Previous studies have examined effective approaches to developing productive instructional designs; however, these were often grounded in traditional learning environments (Buskist et al., 2002; Kember, Kwan, & Ledesma, 2010; Ko, Sammons, & Bakkum, 2014). Given the shift toward online education, it is important to investigate innovative and effective factors that contribute to best practices in online learning. Few studies have specifically analyzed online courses through the lens of instructors' firsthand experiences in developing and delivering high-quality lectures, making this exploration particularly timely and relevant.

Therefore, this study aims to examine the major characteristics and essential elements necessary for implementing best practices in online courses within open and distance university settings. The research questions guiding this investigation are as follows: First, what are the keywords associated with latent topics embedded in the strategies for delivering online lectures? Second, what key characteristics and strategies constitute best practices for online course development as identified by instructors in distance university settings? Third, what insights can be derived from instructors' experiences regarding the challenges and successes of implementing effective online teaching practices in distance learning environments?

II. Literature Review

1. Concepts and Elements of Effective Teaching

The definition of effective and excellent teaching varies depending on the situation and context since the word ‘good’ implies value judgment elements. In particular, the definition of an excellent lecture in higher education may be hard to define depending on a single perspective. The definition of a good class is subjectively influenced by the perceptions of the participants involved in the class, and reflects the social and cultural perspectives on education and classes that the era aims for. Therefore, it is difficult to clearly define what ‘good’ lectures are, how they are organized, and what characteristics they have (Jung & Cho, 2019). Various terms such as “excellent class,” “excellent class,” “effective class,” and “classes that care about students” are also used in previous studies on good lectures (Han, Song, & Kim, 2020).

Shin & Hyun(2018) presented four ways to define good lectures by analyzing existing studies. They argued that good lectures can be defined based on learners’ evaluation of lectures, a judgment of professionals such as instructors and administrators, courses that tried to overcome the limitations or problems of an existing class, and those classes that incorporated effective strategies of various well-designed classes.

As previously suggested, good lectures reflect not only the perception of major stakeholders such as instructors and students but also the educational philosophy from historical perspectives. According to Han et al.(2020), during the 1990s, good lectures focused on instructional strategies on how to positively impact student academic performance which was primarily based on behavioral approaches. Later on, the constructivist perspective has been actively discussed, emphasizing how instructors should support learning so that students can actively construct their own knowledge. Recent perspectives on good lectures highlight the importance of student-instructor interaction to promote students’ interest and motivation for learning and that of instructor’s attitude to give students a sense of respect.

2. Best Practices in Online Teaching

Most of the existing studies on excellent lectures have been focused on the concepts of how to define good lectures. Those studies presented characteristics of excellent lectures based on pedagogical perspectives including content, instructors' characteristics, and teaching methods (Lee, 2019). Factors related to good classes in previous studies show various aspects, but can be classified into some categories including class contents (Feldman, 1976), instructor's attitudes (Morgan & Morris, 1999), pedagogical methods (Kember et al., 2010), and student-instructor interactions (Sun & Chen, 2016).

Meanwhile, some studies focused on instructors' strategical methods regarding effective teaching. Baldwin(2019) tried to present the instructor's perspective on online lecture design through interviews with 33 professors of public four-year colleges and universities with experience in online lecture design. Instructors were adapting to the online environment using strategies that mimic elements in face-to-face classes, and as a teaching design strategy, they were using the video and discussion forum functions of the Learning Management System (LMS) to induce interaction and active participation. Kumar et al.(2019) presented five main characteristics of excellent instructors by interviewing eight instructors who offered online lectures: 1) accurate and appropriate lecture materials linked to practice; 2) the use of multimedia resources; 3) cooperative production of digital content; 4) student's reflection on learning; and 5) clear explanation on the purpose of class activities, skills, and evaluation. Award-winning faculty members use data and evaluation cases to develop excellent online lectures and emphasize the importance of reflection on the opening of courses. Professional instructors reveal that they are willing to use various strategies, learn, use data and analysis, and participate in continuous improvement in an online environment.

Some examples of online teaching in universities provide implications for what elements of good online lectures are. OU in the UK is a representative university that has chosen distance education as its main educational method since its establishment. The UK Open University provides reflection and resources for instructors through the Learning Design team, and provides postings on the Internet that introduce resources that instructors can use for instructional design in a blog format (<http://www.open.ac.uk/blogs/learning-design/>). A recent case in point of online teaching is MOOC. Founded in 2012 by Stanford University professors, Coursera, an American

online teaching platform, offers a variety of online lectures through partnerships with more than 200 leading universities and companies. Coursera operates the Educator Resource Center, which provides various resources for instructors. Educator Resource Center provides data in eight categories: Coursera Basics, Course Content, Assessments, Technical Tools, Launch & Promote, Management, Communication, Analytics. Resources for online teaching support include not only technical support for contents production, but also elements related to the operation of online lectures.

While previous studies have focused primarily on isolated aspects of online education –such as instructional design or student engagement–many have been limited in scope, often neglecting the full process involved in developing, filming, and managing online courses, particularly in open university settings (Buskist et al., 2002; Johnson-Farmer & Frenn, 2009). This study seeks to address these gaps by providing a comprehensive analysis of the key characteristics of best practices for online courses. It uniquely contributes to the existing literature by examining the entire lifecycle of course development, from design and content production to course management and operation, using the lived experiences of instructors in a distance university context. By doing so, it offers a holistic perspective on effective online teaching, with practical insights that can enhance both pedagogical approaches and operational practices in open university environments.

III. Method

1. Research Design

This study utilized a mixed-methods case study approach, integrating both topic modeling and semi-structured interviews to produce robust findings through the combination of quantitative and qualitative analysis. The research first conducted interviews with instructors of courses identified as exemplary, followed by the application of text mining techniques to analyze the interview data. The selection of exemplary media-based lectures for the interviews involved a three-stage process: 1) a review of lecture evaluation results, 2) an assessment of award-winning content

conducted by the digital media centers, and 3) the monitoring of recorded campus lectures. Through this process, 12 exemplary media courses were selected, spanning four colleges: the College of Humanities, the College of Social Sciences, the College of Natural Sciences, and the College of Educational Sciences.

Semi-structured interviews were conducted with the instructors during the fall of 2021 to capture their firsthand experiences in delivering excellent media lecture courses at K Distance University. Each in-depth interview lasted approximately one hour and took place in a relaxed, conversational setting. All interviews were recorded with the informed consent of the participants.

2. Data Collection

1) Site Selection

This research focuses on K Distance University, South Korea's national open university, established in 1972 as the country's first higher education institution dedicated to distance learning. K Distance University operates 47 regional campuses and learning centers nationwide, with an annual enrollment of approximately 100,000 students, ranging from teenagers to individuals in their 90s. Over the past 50 years, the university has evolved into a mega-university with more than 700,000 alumni, continuously offering high-quality education designed to support lifelong learning. It stands as a leading example of a successful open university model in both scale and impact.

2) Participant Selection

Twelve courses were identified as exemplary from a pool of over six hundred lectures offered at the institution under study. As outlined in the research design, the selection criteria included course evaluation results, recognition through awards for excellence in online content design, and a thorough review of recorded lectures to identify best practices in online instruction. <Table 1> presents the list of interviewees along with basic information about the selected courses, which were chosen based on the three-tiered evaluation process.

(Table 1) Participant list and course information

Participants	Lecture	Course Level	Term offer	Production year
A	A-1	Junior, Senior	Spring	2020
	A-2	Sophomore	Fall	2021
B	B-1	Freshman	Spring	2021
	B-2	Junior	Fall	2021
C	C-1	Senior	Spring	2019
	C-2	Junior	Spring	2020
D	D-1	Senior	Fall	2018
	D-2	Freshman	Fall	2020
E	E-1	Freshman	Fall	2019
	E-2	Senior	Fall	2020
F	F-1	Junior	Fall	2021
	F-2	Freshman	Spring	2018
G	G-1	Senior	Spring	2020
	G-2	Junior	Fall	2021
H	H-1	Freshman	Spring	2020
	H-2	Senior	Fall	2020
I	I-1	Senior	Fall	2019
	I-2	Junior	Spring	2019
J	J-1	Freshman	Spring	2020
	J-2	Sophomore, Senior	Fall	2019
K	K-1	Junior	Spring	2020
	K-2	Freshman	Fall	2020
L	L-1	Junior	Spring	2021
	L-2	Senior	Fall	2020

3. Data Analyses

1) Text Mining Analysis

Text mining was conducted to identify the main themes emerging from the interview data, with a focus on noun keywords to derive the characteristics and related concepts of excellent online courses. The process involved three key stages: pre-processing, keyword frequency analysis, and topic modeling, including topic-word network analysis. Initially, the transcribed interview texts were organized in MS Excel, where pre-processing tasks—such as correcting typographical errors and removing stopwords, such as numbers, particles, and pronouns, were carried out. Subsequently, noun

keywords were extracted using NetMiner (v 4.4), a specialized tool for network and text analysis. To further refine the data, three types of keyword dictionaries—'thesaurus,' 'defined words,' and 'exception list'—were developed. In the thesaurus, terms with differing spacing but identical meanings, such as 'media lecture' and 'media-lecture,' were standardized, while variations of the term 'PD,' such as 'PDnim,' 'PD,' and 'Director,' were consolidated under a single representative form. The defined words dictionary incorporated institution-specific terminology, including terms such as 'formative evaluation' and 'Prime College.' Lastly, the exception list was used to exclude frequently occurring but irrelevant terms, such as 'student,' 'class,' and 'professor,' along with department and course names that did not contribute to the research findings.

Second, keyword frequency analysis was performed to derive the main keywords and the appearance frequency that appeared in the interview data. The larger the term frequency (here after TF), the more important the keyword, but there is a possibility that a keyword that is meaningless is included. To compensate for this, TF-IDF (Term Frequency-Inverse Document Frequency) analysis, which means the importance of words, can be used (Seo & Kyun, 2021). In this study, there was no significant difference between the values of TF and TF-IDF, so the analysis was conducted focusing on the TF value.

Third, topic modeling was performed to extract major topics. Topic modeling is a method for calculating the main topics latent in a document and extracting meaningful information through stochastic statistical analysis. In this study, we applied a representative algorithm, Latent Dirichlet Allocation (LDA) (Blei, Ng, & Jordan, 2003). This is a Bayesian approach (Blei, 2012) that infers to what probability the keyword of the original data is distributed through the results of the observed data. In other words, based on the distribution of keywords allocated to individual documents, the topic that occupies the largest proportion is designated as the representative topic of the relevant document (Seo & Kyun, 2021). Meanwhile, before LDA analysis, the optimal number of topics k was derived using FindTopicsNumber in the R ldatuning package (Arun et al., 2010; Cao et al., 2009; Deveaud, SanJuan, & Bellot, 2014; Griffiths & Steyvers, 2004). FindTopicsNumber has been widely utilized to estimate the optimal number of topics by comparing indices from Arun et al.(2010), Cao et al.(2009), Deveaud, SanJuan, & Bellot(2014), and Griffiths & Steyvers(2004) (Baek, 2020). Based on this approach, we identified a total of six optimal topics, considering factors such as topic overlap, word

similarity within each topic, and the appropriateness of topic labels. The final topic names and key keywords were determined through discussions among a research team composed of four PhDs in education. Lastly, the detailed keywords for each topic derived from the topic modeling were visualized using a network map. In the network map, each keyword is displayed in a radial network connected by links, enabling easier and more structured identification of the relationships between various topic-specific keywords present in the document (Lee & Eom, 2023; Paranyushkin, 2010).

2) Qualitative Data Analysis

A qualitative analysis was conducted to examine the key characteristics and critical elements necessary for the successful implementation of best practices in online course delivery within a distance university setting. Two distinct types of data were collected for this study. The first type consisted of interview transcripts with instructors, supplemented by questionnaire data aimed at gaining deeper insights into the processes of course development and administration. The second type included field notes documenting the instructors' reactions and gestures, as well as the researchers' observations. The interviews were transcribed using Naver ClovaNote.

The collected data were analyzed using the constant comparative method, involving continuous comparative review through collaborative discussions among the research team. The iterative comparative analysis followed the stages of open coding, categorization, and category validation(Yoo et al., 2018), and was employed as the methodological framework for analyzing the experiences and expertise of instructors involved in the development and implementation of best practice-based courses. During the open coding stage, interview transcripts and field notes were consolidated into an Excel file, where the development and operational processes of exemplary courses were thoroughly reviewed. Key phrases that best represented the content were systematically coded. In the categorization stage, thematic elements identified through open coding were compared to analyze similarities and differences. Similar themes were grouped into higher-order categories, and appropriate category labels were assigned. During the category validation stage, the categorized data were cross-referenced with the original data to verify their appropriateness, ensure accurate representation of the content, and identify any necessary additions or modifications. In conclusion, this study explored the experiences of instructors who developed and operated best practice-based online

courses. The research examined individual instructors' efforts and expertise throughout the course development and operation processes, and conducted a qualitative analysis to identify the primary characteristics and key elements underpinning the successful implementation of exemplary course practices. To ensure the validity and reliability of the research findings, the results were validated through peer review by two education experts with doctoral degrees, thus ensuring the rigor and credibility of the study's conclusions.

(Table 2) Interview protocol

Interview Stage	Questions
1. Basic Information	<ul style="list-style-type: none"> - The year of your appointment at K Distance University - Experience of distance education before coming to K Distance University
2. Course Design Stage	<ul style="list-style-type: none"> - If so, why has it changed? (related episode) - Why did you provide OT videos only for 000 subjects? Or why didn't you provide them?
3. Course Filming Stage	<ul style="list-style-type: none"> - What do you focus on when filming your current lecture? - How do you prepare to implement your goals? - Is there anything that the students especially liked about the video content? - Is there any difference between your past lectures and the current lectures offered at K Distance University? If there is, why has it changed? - Is there any good or bad experience where you collaborated well with the digital media center? - Do you monitor the lecture video yourself?
4. Lecture Operational Stage	<ul style="list-style-type: none"> - How do you operate media lectures? (use of the website, evaluation, etc.) - What do you think is important when operating your courses? - Is there any difference between your past lectures and the current lectures offered at K Distance University? If there is, why has it changed? - How do you interact with your students?
5. Memorable episodes	<ul style="list-style-type: none"> - Experience of offering lectures that were either evaluated positively/negatively by students
6. New Strategies	<ul style="list-style-type: none"> - Any strategical methods you want to try for your new lectures?
7. Advice for New professors	<ul style="list-style-type: none"> - What advice do you give to new professors at K Distance University regarding lecture development and operation?

IV. Results

1. Text Mining Results

As a result of frequency analysis, a total of 1,961 keywords were extracted. 45 keywords that have appeared more than 30 times are presented in <Table 3>. Keywords such as ‘TV lecture’, ‘video’, ‘lecture notes’, ‘Digital Media Center’, ‘content’, ‘camera’, and ‘writer’ are extracted together as related keywords, indicating that they are the most related to course production and filming.

Additionally, keywords such as ‘textbook’, ‘question’, ‘problem’, ‘examination’, ‘explanation’, ‘attendance class’, ‘task’, ‘email’, and ‘feedback’ are extracted, so it can be inferred that overall planning and design elements and operation of subjects are basic factors for instructors to consider.

On the other hand, it is difficult to develop course content through keywords such as ‘burden’, ‘system’, ‘budget’, ‘planning’, ‘against’, ‘external’, and ‘support’, and it can be inferred that support for students and professors is needed.

The word cloud of 45 keywords is shown in [Figure 1].

<Table 3> List of highest count keywords

Keywords	Frequency	Keywords	Frequency	Keywords
PD	289	Effort	59	e-mail
Content	212	Attendance class	54	Delivery
Textbook	167	Understanding	54	Evaluation
Time	138	Burden	48	Planning
Question	107	Digital Media Center	47	Distress
Major	107	Composition	47	Screen
Problem	98	Experiment	46	Outside
Example	94	Course materials	45	Camera
TV lecture	92	Individual	45	Support
Video	88	Production	44	Demand
Method	87	Assignment	44	Application
Examination	86	System	43	Feedback
Lecture notes	75	Budget	42	Writer
Explanation	68	Experience	40	Solution
Media lecture	60	Contents	39	Image

topic is ‘course organization and management’. It was found that professors reviewed many factors in the course design stage. Basic and core factors such as explanation methods, student understanding, assignments and feedback, and the learning environment were considered. In particular, it was found that tests and evaluations related to students’ academic achievement and grades were very important.

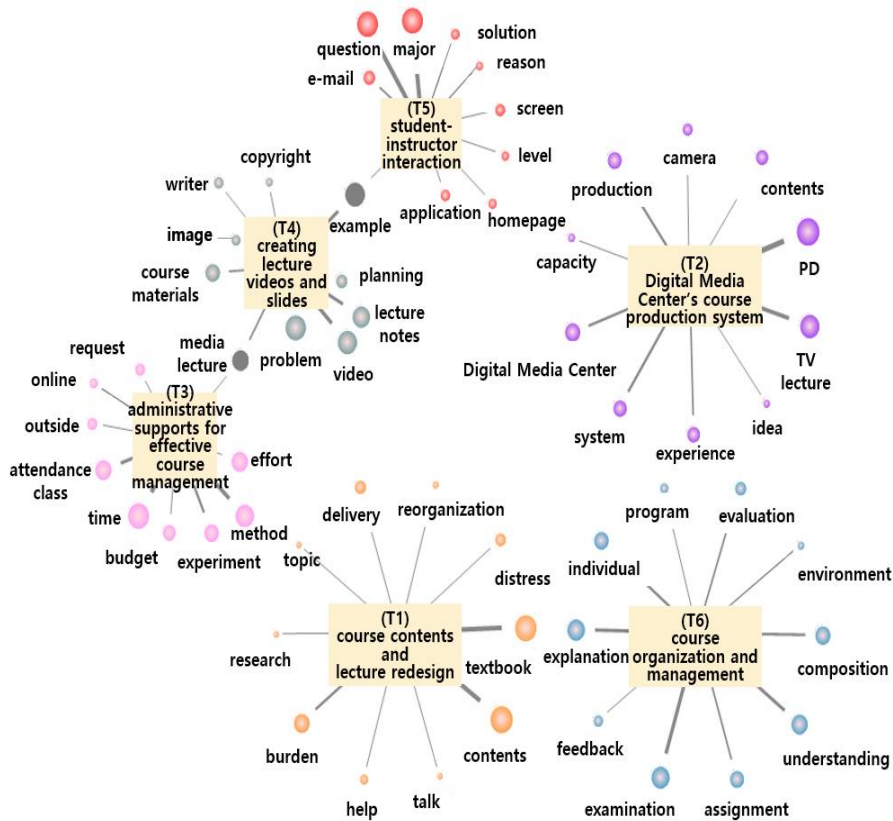
Second, <Topic 2> and <Topic 4> are related to “ii) course production and filming”. <Topic 2> included keywords such as ‘PD’, ‘TV lecture’, ‘Digital Media Center’, ‘production’, and ‘system’, and the theme of the topic is ‘Digital Media Center’s course production system’. K Distance University produces media lectures centered on PD at the Digital Media Center and based on this production system, various capabilities and ideas of PDs are combined to explain that excellent media lectures are being produced through smooth collaboration with professors. <Topic 4> included keywords such as ‘video’, ‘lecture notes’, ‘material’, ‘writer’, and ‘image’, and the theme of the topic is ‘creating lecture videos and slides’. It was found that professors developing excellent courses use their own know-how on course videos, lecture notes, and additional learning material development methods. The use of images to deliver course content and copyright issues are also emerging as important issues to consider in developing excellent courses.

Third, <Topic 3> and <Topic 5> are related to “iii) course management and operation”. <Topic 3> included keywords such as ‘method’, ‘attendance class’, ‘experiment’, ‘request’, and ‘budget’, and the theme of the topic is ‘administrative supports for effective course management’. K Distance University provides interaction, supplementation, and in-depth classes with students who miss online classes through face-to-face attendance classes. It was found that outstanding professors at the College of Natural Science demanded additional budget support for the smooth operation of various experimental and practical classes in attendance classes. The demand for expansion of support for efficient course operation is common in Liberal Arts, Social Sciences, and Educational Science colleges. <Topic 5> contains keywords such as ‘question’, ‘e-mail’, ‘homepage’, ‘solution’, and ‘utilization’, and the theme of the topic is ‘student-instructor interaction’. Professors who have run excellent courses explain that interaction with students through Q&A and communication is an important element of course management. It was found that Q&A is mainly conducted using e-mail, and the professor’s website is being used as a communication channel.

〈Table 4〉 Topics, topic labels and representative keywords

Topic number	Topic label	Representative keywords	%	Most related areas
1	Course contents and lecture redesign	Contents, textbook, burden, delivery, reorganization, distress, talk, topic, research, help	26	i) Course design and development
2	Digital Media Center's course production system	PD, TV lecture, Digital Media Center, production, system, experience, contents, capacity, idea, camera	16	ii) Course production and filming
3	Administrative supports for effective course management	Time, method, attendance, class, experiment, request, budget, effort, media lecture, online, outside	16	iii) Course management and operation
4	Creating lecture videos and slides	Problem, video, lecture notes, example, course materials, media lecture, writer, image, copyright, planning	15	ii) Course production and filming
5	Student-instructor interaction	Major, question, e-mail, homepage, screen, level, solution, application, example, reason	15	iii) Course management and operation
6	Course organization and management	Examination, explanation, understanding, composition, individual, evaluation, assignment, feedback, program, environment	12	i) Course design and development

The result of keyword network analysis is shown in [Figure 2]. 〈Topic 3〉, 〈Topic 4〉, and 〈Topic 5〉 share the keywords 'media lecture' and 'example' and represent a connected form. Through the linkage of the 'media lecture' keyword in 〈Topic 3〉 and 〈Topic 4〉, instructors who operate excellent courses are looking for the most efficient way to consider the relationship between the development of media lectures provided online and attendance classes conducted offline. 〈Topic 4〉 and 〈Topic 5〉 clearly show that it is the characteristic of excellent media instructors to deliver and explain learning content through examples in the actual development and operation of courses through the linkage of 'examples'.



[Figure 2] Result of keyword network analysis

2. Qualitative Research Findings

Based on the results of text mining analyses, qualitative research findings converged on three major topics including ‘course design and development’, ‘course production and filming’, and ‘course management and operation’. This section presents the results of semi-structured interviews providing empirical evidence and highlighting quotations from research participants.

1) Course Design and Development

The first analytical theme revealed in the interviews was related to sharing the strategic ways of course design and development. Interviewees emphasized that they try to consider learners’ characteristics and the need to improve their motivation for learnings. Professor C highlighted that a “Customer-oriented perspective” is necessary

for designing the course:

From a customer-oriented point of view, the concept of the quality of such products might not be satisfied enough. So no matter how hard I tried, and even if I felt that I emphasized enough content, that might be from the perspective of the producer...As it turns out, students may not understand the contents of the lecture. So I thought it was important to always think from the perspective of the customers... (Professor C)

To understand who the learners are and what characteristics they have, instructors will not only meet them in person through offline attendance classes in the past, but also identify their age, employment, and related fieldwork. Professor H stated that he once redesigned the whole course after incorporating students' comments and opinions.

I used to put all the theory and practicum courses in one week. But then, I was told that my words were too fast and hard to understand especially in the second half of my lectures. Maybe it was because I wanted to cover all content and practicum in such a short period. I thought that I should divide the theory and practicum classes into different weeks. Students' feedback seemed to be positive after reorganizing the lecture in that way. (Professor H)

However, instructors who participated in the interview said that it is not easy to meet students' needs because of the diverse characteristics of students and different levels of academic abilities. Many of the instructors who were interviewed were trying to develop their courses including various course activities and offer additional support to stimulate learners' motivation. Professor F mentioned his strategic know-how as follows:

I try to ask questions to students at the end of the lectures like...after listening to this lecture today, let's think about this and that... It could be some wrapping up questions or just raising a problem..Because we used to offer the lecture and end it without providing students the chance to think and review the contents. Students listen to the lecture for 45 to 50 minutes and go away. (Professor F)

Unlike other universities, K Distance University offers textbooks that are usually written by their affiliated professors and a large portion of the lectures are primarily based on those textbooks. Lectures are usually developed after the textbooks are

developed in the order of the “pre-textbook development and post-filming system.” The instructors said that they always think about how much and how to reflect the contents of the textbook in the lecture, and that although each instructor has different strategies, they try not to simply summarize the contents of the textbook.

On the other hand, it is difficult to decide how much the contents of the textbook should be reflected in the lecture, especially when the writers of the textbook and instructors are different. This is because the important points of the lectures may vary by instructor. In this case, Professor E revealed that he intensively includes content that he considers important in the lecture.

Rather than being completely bound by the textbook, I sometimes want to emphasize other contents that are not covered in the textbook. That's why as a professor, I focus a lot on what I want to highlight in each lecture, not just limiting the contents based on the textbook. (Professor E)

Participants also revealed that they are concerned about how to organize lecture videos when designing lectures. To help learners better understand the contents of the lecture, instructors use various materials and formats when organizing the lectures. Instructors sometimes use orientation videos in the first week of the course introducing the entire subject. Some of them provide animations when explaining important concepts or theories so that students could be more interested and focused during class. Professor I and Professor G mentioned their experience as follows:

Almost all of my subjects had orientation sessions, so I told the students in advance about the overall evaluation, questions, and so on, and that's how I started. (Professor I)

Even though the textbooks and lectures have changed, we keep creating animation to provide lectures using various formats... Students used to say that this is the most difficult subject that they ever had, but I recently I rarely hear that. (Professor G)

In addition, the instructors who participated in the interview thought about how to connect the contents of the test and textbook to the lecture video, and designed the course in consideration of the functions and roles of the subject in the entire curriculum of the department.

2) Course Production and Filming

Filming lectures is a special and unique characteristic of lectures provided by open and distance universities such as K Distance University. Since lectures have to be put into film and recorded, it can be seen that unlike face-to-face lectures conducted in real-time, the instructor's efforts for filming are required. Professors and instructors who offer online courses at K Distance University have different experiences compared to regular universities when developing lectures and may need their own know-how and strategies in the process of course production and filming.

Participants confirmed that it was necessary to prepare thoroughly for the lecture before recording. Professor K highlights his experience as follows:

When I'm filming, I think media lectures need to be prepared in advance. Sometimes I can't think of words. You can't stutter at times like that. So I tend to prepare a lot. You have to prepare these things well and put them on a tight schedule in 45 minutes. (Professor K)

Some of the instructors who participated in the study shared the know-how that they prepared scripts in advance of filming.

I wrote a script after a while. To give a lecture on what I thought, I wrote a script and read it like this. Not to make a mistake. (Professor J)

When I first came here... I don't know if it's meaningful to talk about the past, but since I recorded it, I wrote down all the manuscripts during the first lecture. So I used to write down everything and read it. (Professor I)

I prepare scripts for graduate school classes. If you have to explain the topic very clearly, preparing a script before filming helps a lot. (Professor K)

Most of the instructors who participated in the study were able to monitor and control the situation when recording the lectures. Professor D revealed that the more experience he had in filming, the more know-how he accumulated at the filming site, and he became more comfortable in filming than before.

With my experience, my ability to control the situation of the lecture has become much

better. ...My ability to deal with certain situations during recording improved when I got used to them. As it got better, I was so obsessed with delivering something in the past that I was in a hurry to deliver it, and I think my ability to be more controlled and comfortable has improved...In the past, I would have been busy delivering the contents without thinking about it, but now I have gained the ability to control and manage the situation. (Professor D)

In the case of Professor E, he imagined that the students were there with him just like he was offering lectures in face-to-face settings.

I did the same thing as offline lectures. Of course, when I give offline lectures, there are a lot of on-site questions and answers, but in fact, during filming, students are not with you. But sometimes I ask questions to students imagining students are just sitting there, which helps me a lot. (Professor E)

It was confirmed that the instructors who participated in the study were paying attention to using appropriate voice tone, speed of speech, and gestures when filming the lecture.

My voice tone is kind of low. Since one of my weaknesses is that my pronunciation is not clear, Producers adjust the tone to an appropriate level, but I keep trying to pronounce it clearly...So when I give lectures, I try to make sure that I don't have any bad habits. (Professor D)

Collaboration with the producer is essential in the process of lecture production. Interviewees shared various cases about collaborating with producers to create a better quality of lectures. For example, instructors introduced that there were cases in which various production ideas proposed by the producers were applied to lectures and received a lot of favorable responses from students.

There was a producer who made one of the orientation videos really professionally. You know the first lecture is very important. The producer made the orientation video and I thought it was professional. Students also liked it and said it was like watching a movie. That was a long time ago so maybe students may not have seen much of that in other classes. I mean, it was so new and I loved it. (Professor C)

I think it was really nice that the producers gave me a variety of ideas when I was planning a lecture. I think it was really good that they helped me develop the lecture relevant to the subject since there aren't that many things we can do in the video. It's not a lot, but it was nice to talk about things that we could do within that range... (Professor G)

The instructors who participated in the study mentioned that it may be necessary to respect professionalism and listen to each other's opinions in the collaboration process. Professor B believes that instructors and producers can demonstrate professional skills in each area and supplement each other's deficiencies to help create more excellent lectures.

I think that most of the instructors are not very interested in offering ideas in the filming process. But in fact, I had an experience collaborating with the producer very well since I tried to be very actively involved in sharing ideas which create diversity here. (Professor B)

3) Course Management and Operation

The last theme that converges on implementing effective online lectures relates to a process of course management and operation. Many of the instructors considered offline classes important in running the lecture, and it was confirmed that they were making various efforts to design the offline class effectively. For example, rather than using the offline class as an explanation or question-and-answer time for media lectures, instructors used it as an opportunity to provide additional necessary materials to students or deepen their understanding of the contents of media lectures. Professor E says that he aims to operate offline classes that do not repeat the existing media lectures.

As for the attendance class, I think it's right not to repeat this if the instructor who runs the lecture conducts the attendance class. Actually, during the attendance class, I didn't want to do the same thing that the professor who recorded the lecture. It's the same content, but it's different, so I think the lecture will come out differently even if it's the same content. (Professor E)

Evaluation in the operation of lectures can be said to be the area that both

instructors and students are most interested in. Professors who responded to the interview said they were thinking about the scope of the final exam, evaluation methods, and evaluation criteria. They often said that the final exam was based on textbooks considering students' various circumstances.

When the exams were asked from outside of the textbook and say that I did additional content in the lecture, there are a lot of complaints about the questions. That's why I do my questions thoroughly based on textbooks. When some questions were based on the lecture itself, students complain a lot. (Professor D)

Interactions with students were also one of the important issues in running lectures in open university settings. Based on interviews, it is obvious that instructors interact with students in various ways and listen to their reactions. Students often post their thoughts on the contents of the lecture or ask questions after watching the media lecture posted by the instructor. Professor I who interacts with students using Google Group said that students' responses are increasing over time.

I'm also doing Google Groups. The reason I'm doing that is that in our school system, for example, if you want to deliver something to students, it's completely one-sided to upload it as a notification. But when using Google groups, it's sent to all the students who take that subject. After a year or two, the students didn't reply much at first, but now they answer more frequently than before. I get a lot of emails. (Professor I)

Instructors are trying to improve lectures by reflecting on the feedback they receive from students regarding them. When producing media lectures, the students' feedback was often immediately reflected as it was sent to the producers and used to check the contents of the lecture.

When students mentioned that there might be some mistakes in the lecture, I immediately check it right away. I sent it to the producer saying that I heard there was an error, so I ask them to fix that. (Professor G)

I have the plan to reorganize the subject this time, so I am trying to create it by reflecting the opinions of the students. I think the strength of our school's lecture production system is that we can collect students' opinions and reflect them in the next phase of production. So, next year, I plan to produce my lectures with these aspects in

mind. (Professor H)

According to the results of analyzing the experience of instructors in the process of course management and operation, instructors used to think of offline classes and evaluation as important areas. In addition, it was revealed that the lecture management platform, U-KNOU Campus, had some limitations interaction functions with students, but it was trying to interact with students in a way that instructors prefer and reflect students' feedback on lectures in lecture improvement.

V. Conclusions and Implications

1. Conclusions

This study employed a mixed-method approach to investigate effective teaching practices in a distance university setting. While previous research on effective lectures has largely focused on defining what constitutes a 'good' lecture and has identified characteristics of excellent teaching primarily from pedagogical perspectives (Kember, Kwan, & Ledesma, 2010; Lee, 2019), this study provides a more comprehensive exploration by integrating findings from text mining and qualitative case studies of outstanding courses at K Distance University. The results converge on three major themes—course design and development, course production and filming, and course management and operation—broadening the scope of what constitutes effective online teaching beyond traditional pedagogical insights.

The study highlights that effectiveness of online instruction is dependent upon essential elements including but not limited to well-designed course contents considering the needs and interests of learners, active collaboration of lecturers and producers when recording studio lectures, and encouragement of student-instructor interactions to help students be well engaged in their courses. Recommendations were offered to those who may be interested in developing robust and quality online content.

The major findings based on the three primary themes are as follows. First, in the course design and development phase, instructors consider the characteristics, situations,

and needs of learners the most important when planning lecture contents and delivery methods. They also pay great attention to selecting lecture content and audio-visual materials considering levels of courses and field of subjects. Second, in the course production and filming stage, instructors developed their know-how by applying various techniques to improve lectures related to voice tones, scripts, gestures, etc. More importantly, collaborations between instructors and producers were highly emphasized to improve the quality of media lectures. Third, for the course management and operation stage, instructors emphasized that offline classes should not be offered simply by repeating the media lecture courses, but to provide other experiences such as laboratory classes, question-and-answer classes, etc. Setting an appropriate evaluation criterion is an important factor in operating an excellent lecture. Active interactions between students and instructors is an important factor in implementing the best practices of online courses.

2. Implications for Practices

The results of the study give some implications to online lecture instructors. In the process of planning and designing a media lecture, the most emphasized part for the instructors was to determine the lecture content and delivery method by reflecting on the learner's characteristics, situation, and needs. To develop excellent media lectures, it is necessary to analyze the characteristics of major students and listen to their needs and reflect on the planning and design of lectures.

One of the most prominent parts of the instructor interview results was the development of excellent media lectures through active collaborations with producers. To develop higher-quality media lectures, it is necessary that a mutually respectful relationship between the instructors and producers is maintained.

Instructors should develop and apply their own strategical methods through various attempts and efforts of recording the lectures. Rather than developing lectures based on the same formats, instructors may reflect on their own experience, monitor lectures by instructors themselves, find improvements, and apply them to the development of new media lectures.

Finally, as the study has shown, instructors who run excellent media lectures actively reviewed students' opinions regarding lecture styles, contents of lectures, quality of

filming, and so on. Using various methods, it would be important to expand opportunities for interactions with students and incorporate their feedback to offer quality online courses.

The results of this study also give implications for what efforts are needed by institutions to develop excellent online lectures. To ensure the quality of online lectures, it is also necessary to offer faculty training and to provide online teaching resources regarding essential techniques and skills, templates in presentation format to be used for any online courses. It is also necessary to produce online course design guidelines and quality standards and provide them to instructors.

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〈요 약〉

원격대학 온라인 강의 개발 전략 탐구: 교수자의 경험을 중심으로

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본 연구는 온라인 및 하이브리드교육의 수요가 증가함에 따라, 원격대학 환경에서 효과적인 교수법을 탐색하는 것을 목적으로 하였다. 이를 위해, K 원격대학의 강의 중 우수강의를 선정하고, 교수자 인터뷰를 바탕으로 사례연구를 진행하였다. 분석 결과, '강의 설계 및 개발, 강의 제작 및 촬영, 강의 운영 및 관리'라는 세 가지 주요 주제가 도출되었다. 연구 결과, 성공적인 온라인 교육을 위해서는 체계적으로 설계된 강의 콘텐츠, 교수자와 제작자 간의 협력적 강의 제작 과정, 학생과 교수 간의 활발한 상호작용 장려가 중요하다는 점이 확인되었다. 마지막으로, 온라인 교육에서의 효과적인 교수법과 학생의 적극적인 학습 참여를 촉진하는 양질의 온라인 강의를 개발하기 위한 제언을 제시하였다.

- 주요어: 온라인 교수법의 효과성, 온라인 강의 개발, 온라인 학습 성공, 교수자의 경험, 원격대학

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