

Development of Online Contents for Public Communication Education Connected to Nuclear Energy Related Majors

Eunok Han, Yoonseok Choi, Jieun Lee
Korea Academy of Nuclear Safety
E-mail: haneunok@gmail.com

1. Introduction

Nuclear and radiation majors have come to an era in which they must have the ability to explain nuclear energy and radiation risks to the general public. Nuclear experts, civil servants, and nuclear power plant engineers face a period in which communication with local residents surrounding nuclear power plants must be streamlined, however there are various limitations in communication with local residents living near nuclear power plants. If the general public does not accept nuclear power and radiation applications, denuclearization policies may be realized again. It is necessary to acquire and promote the basic knowledge of communication in the field of technology from university major courses in the face of the current situation in which persuasive communication about nuclear technology is required for the general public, local residents living near nuclear power plants, and policy makers.

It is necessary to examine various communication positions and characteristics on nuclear energy with local residents living near nuclear power plants, nuclear experts, and journalists, and to learn and practice communication methods that are appropriate for effective communication pathways between local residents living near nuclear power plants in Korea and scientific experts. Without training in writing and speaking, it is difficult to develop socially persuasive arguments on this topic. It is necessary to train nuclear experts who can effectively communicate with the general public and accept suitable pathways for methods of writing and communication skills even in a short time in Korea. This is designed to help nurture convergence specialists in the social and humanities aspects and to combine communication and media response skills which are suitable for realizing social emotions. This project aims to develop an online content for nuclear related majors focusing on how to learn how to communicate with the general public.

2. Method

The storyboard was prepared with the advice of experts in each field, with regards to experts, reporters, and residents living in nuclear power areas who have the most experience connected to nuclear communication for the general public. The storyboard consisted of three sessions. The primary content was composed of materials to form a consensus that requires nuclear communication. The secondary contents

included writing and reading articles, opinion writing, and speaking skills according to the communication characteristics of the nuclear power sector. The tertiary contents included understanding the position and characteristics of nuclear power communication of local residents of each nuclear power plant, and communication methods suitable for the situation of local residents of nuclear power plants in Korea. All progress was made through a qualitative research process. Online content is in Korean. It is provided as a supplementary material for regular classes at the university and as a main material for special programs, and the user clicks an online address to make a simple survey (2 minutes) and then plays the video.

3. Results

1. Introduction of developed content types

Title of lesson 1: Nuclear communication, What should we do? (28 minutes)

Learning goal: To understand communication sympathy in the public domain for nuclear communication.

Contents of learning: The actual situation of nuclear communication based on experience, introduction of effective nuclear and radioactive materials for public communication, and main tips for communication.

Online access address:

<https://www.youtube.com/watch?v=qbgdZoYJXr8>



Fig 1. Online content; Nuclear communication, What should we do?

Title of lesson 2: How to write and speak well for nuclear power majors (37 minutes)

Learning goal: To understand the communication atmosphere in the nuclear field, to understand the basic concepts of writing and speaking, and to be able to effectively communicate with the general public about nuclear energy concepts.

Contents of learning: Communication atmosphere in the nuclear field, writing and reading articles, writing opinions, and speaking skills.

A summary textbook is provided for nuclear majors on how to speak and write well on the selected topic.

Online access address:

<https://www.youtube.com/watch?v=lZnrgP-FC80>



Fig 2. Online content; How to write and speak well for nuclear power majors



Fig 3. A well-spoken and well-written text book for nuclear majors

Title of Lesson 3: Two-way communication with local residents living near the nuclear power plant (28 minutes)

Learning Goal: To understand the position and characteristics of nuclear power communication of local residents near each nuclear power plant, and to understand the characteristics in which to narrow the communication gap between experts and residents, so that communication can be made more suitable for situations regarding local residents living near nuclear power plants in Korea.

Contents of learning: Differences in thinking between nuclear energy experts, residents living near nuclear power plants, differences in communication attitudes between nuclear experts and residents of nuclear power plants, and methods for communication from their own point of view.

Online access address:

http://222.112.237.110/dev/p_2022_nuclearAcademy006_radiationHumanResources2022/movie.html?&checkNum=1



Fig 4. Online content; Two-way communication with local residents of the nuclear power plant

2. Provision of developed content

- Education site: www.kanselearning.kr
- Training method: Anytime online (free training, refer to the manual)
- Conditions for completion: 100% progress rate, issuance of a certificate of completion upon completion
- Curriculum: A total of 3 courses for communication education (4 types of certificates issued in 2023)

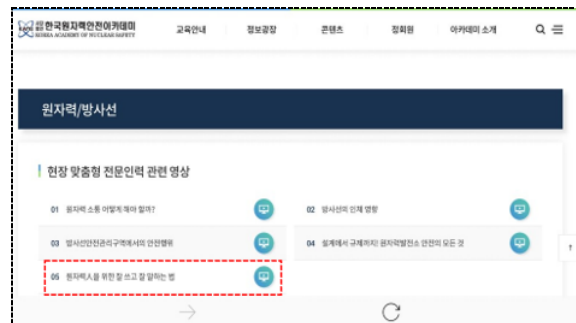


Fig 5. Sites providing online content

3. Conclusions

After the Fukushima nuclear power plant accident in 2011, various negative rumors about radioactivity spread nationwide in Korea. The general public has a vague fear of nuclear power and radiation. Residents of nuclear power areas have conflicts with respect to nuclear power. To solve this problem, proper communication is necessary. The developed online communication contents are helpful to nuclear power majors and are shown to be statistically effective. From major students to experts in the field, communication skills should be improved by taking this online communication content.

REFERENCES

Lim CH, SH Kim. A Comparative Study on Strategies for Trust Recovery and Acceptance of Nuclear Power in Nuclear Power Plant Areas. *Crisisonomy*. 2017;13(11): 133-148.