

# E-Learning For Statistics Education At Korea National Open University

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## 1. Introduction

e-Learning is an on-line education system defined as the self paced or real time delivery of training and education over the internet to an end user device. e -Learning has a few advantages such as reduction of education cost, repeated learning, customized education, and self-paced learning.

This paper describes the e -learning contents of statistics that anyone who wants to study could study anywhere, anytime with the internet and multimedia system. Those e-learning contents combine the e-lecture, e-book, simulation experiment, web lin k for reference, computer -aided tutor for statistical learning (CATS), self -evaluation system, and a statistical package for the practice of data analysis.

Therefore, it is a use of technology outside the classroom to do what we would normally be doing in the classroom. Instead of having to schedule a time to go to a classroom, students can take courses anytime and anywhere, thus allowing for the distance education of Korean National Open University. Recently, e-learning took advantage of the advancement of computer technology, leading to a significant improvement in educational interface along with many simulation and animation contents. Furthermore, the inclusion of video or interactive graphs in e -learning improved the understanding of fundamental con cepts of statistics. The communication technology such as the internet system, which is needed as a main instructional and communication tool, has been widely available in Korea thanks to aggressive governmental policy in information technology.

## 2. e-Learning of Statistics Education

The motivations of e -learning of statistics are as follows;

- 1) Variety of educational demand.
- 2) Change of paradigm of statistical education.
- 3) Increase of access to www
- 4) Enlargement of educational space
- 5) Various levels of teaching-learning system.

The tools for e-learning courseware are JAVA, JAVA script, Flash and C++ for CATS and Statistical package S-Link with Active Serve Pages (ASP) based on the already developed software, Component Object Model (COM).The simulation f or education was developed by professor Mittag in University Hagen in Germany.

This e-learning contents composed of the following components.

In the e-book, there is text -based summary of the textbook with hyper link which enables connection with the international web site directly. CATS is the computer aided teaching statistics package in which individual modules cover the theoretical simulation experiments. S -Link is a statistical package module for the practice of data analysis ISP(Information Statisti cal Processor) that had been developed during last 10 years.

During the on-line evaluation, students review the theoretical concept through the analysis of a data set and multiple choice self test. If we accumulate the data bank and problem bank, students can take the evaluation test according to their level.

### **3. Remarks**

This e-learning courseware is the prototype system. For the purpose of real use many corrections and updates are still needed. Despite the fact that e-learning content development requires significant financial support and many people in the area of computer science, education, and subject, the impact of the e-learning content will be significant.

### **References**

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