Design of Authentic Learning: A Challenge in E-learning Specialist Graduate Program

Junko Nemoto
Kumamoto University, Japan
nemoto@kumamoto-u.ac.jp

Shinichirou Kubota
Kumamoto University, Japan
kubota@cc.kumamoto-u.ac.jp

Masahiro Migita
Kumamoto University, Japan
migita@cc.kumamoto-u.ac.jp

Ryuichi Matsuba
Kumamoto University, Japan
matsuba@kumamoto-u.ac.jp

Shirou Kitamura
Kumamoto University, Japan
kit@kumamoto-u.ac.jp

Toshihiro Kita
Kumamoto University, Japan
kita@kumamoto-u.ac.jp

Katsuaki Suzuki
Kumamoto University, Japan
ksuzuki@kumamoto-u.ac.jp

Abstract: This paper describes the design of authentic learning by taking two courses in a graduate program in Instructional Systems that is a full-online program to raise the professional level of e-learning. The two courses described in this paper, i.e., E-Learning Practicum I & II, are required paired courses that have been provided after several prerequisite courses; in these courses, to gain work experience as an instructional designer, it is important for the students to practice and apply their knowledge and skills they obtain in this program as they do their class activities. To enrich the context of learning, we employed a story and made the activities better to maintain consistency in the activities compared to before we used a story; then, introduce the lessons we learned from the practice.

Introduction

The Instructional Systems program at Kumamoto University, where we belong, provides an online master's program; students participate from various areas in Japan (Suzuki, 2009). Most of the full-time students take courses online to pursue a degree as well as work at a job. We focus on both training and research for learners who expect to develop educational design knowledge by using technologies. Putting Instructional Design in the center of the curriculum, the students learn technology and management aspects by integrating them throughout the two-year

program. Our mission in the master's program is to provide a practical learning environment that trains experts in the educational design field.

E-Learning Practicum I & II are paired compulsory courses that have been provided after several prerequisite courses; in these courses, to gain work experience as an instructional designer, it is important for the students to practice and apply their knowledge and skills they obtain in this program as they do their class activities. Students form into groups and work as a group with an assigned client who is our universities' professor; their mission in the practicum is to design and manage the development of an e-learning course of which the professor is in charge. Most of the client professors' courses are conventional classes for which they expect to use e-learning technology to conduct their class more effectively and efficiently, and, therefore, volunteer to join the E-learning Practicum. The practicum is the collaborative work of four stakeholders: our graduate students; the client professors; staff in a university institution who develop e-learning courses; and us, the practicum instructors. Developing several e-learning courses in real online graduate courses is the unique aspect of the practicum, although there are several challenges we need to overcome.

Overview of the Two Practicums

We set up the two practicums as a place within which the students can see if they have assimilated the knowledge of the course material and incorporate it into the course deliverable. This is a challenge for both the students and the instructors. Along with an actual client's needs, students need to manage their learning by fulfilling the course requirements and completing the tasks and assignments. The instructors, nevertheless, need to watch the students' learning process and guide them. The procedure is for students to try by themselves, first, and then the instructor navigates them, if they have erred or needed help. The degree to which the instructor intervenes with the students is a key provision of a successful learning environment, but that is also a difficult decision for the instructors to make in these courses.

Another difficult element in the management of the two consecutive courses is the clients, who are professors from other departments. Some clients have used e-learning, but some have no experience and are not good at using technology. There are various types of clients as well as various needs and constraints; therefore, organizing and dealing with a wide variety of information and proceeding in the correct direction is very challenging for both students and instructors.

E-Learning Practicum I

As a first step, students form into groups by selecting a client course that they are interested in. The goal of the E-Learning Practicum (Figure 1) is to develop a proposal based on the client's Request for Proposal (RFP) that includes the client's needs and expectations. Students follow the steps that are provided in the practicum and collect resources under the supervision of the course's instructors to complete their tasks such as posing questions to clients, preparing presentation documents, creating prototype contents to give clients an image of the proposal; eventually, the students make a proposal and submit a development plan as an assignment. Each student group also creates a development plan to show the course instructors and the university's Institute for E-Learning Development, who has a development staff for e-learning, the feasibility and adequacy of the proposal. The students' assessments are measured from various points, as in a real work place.
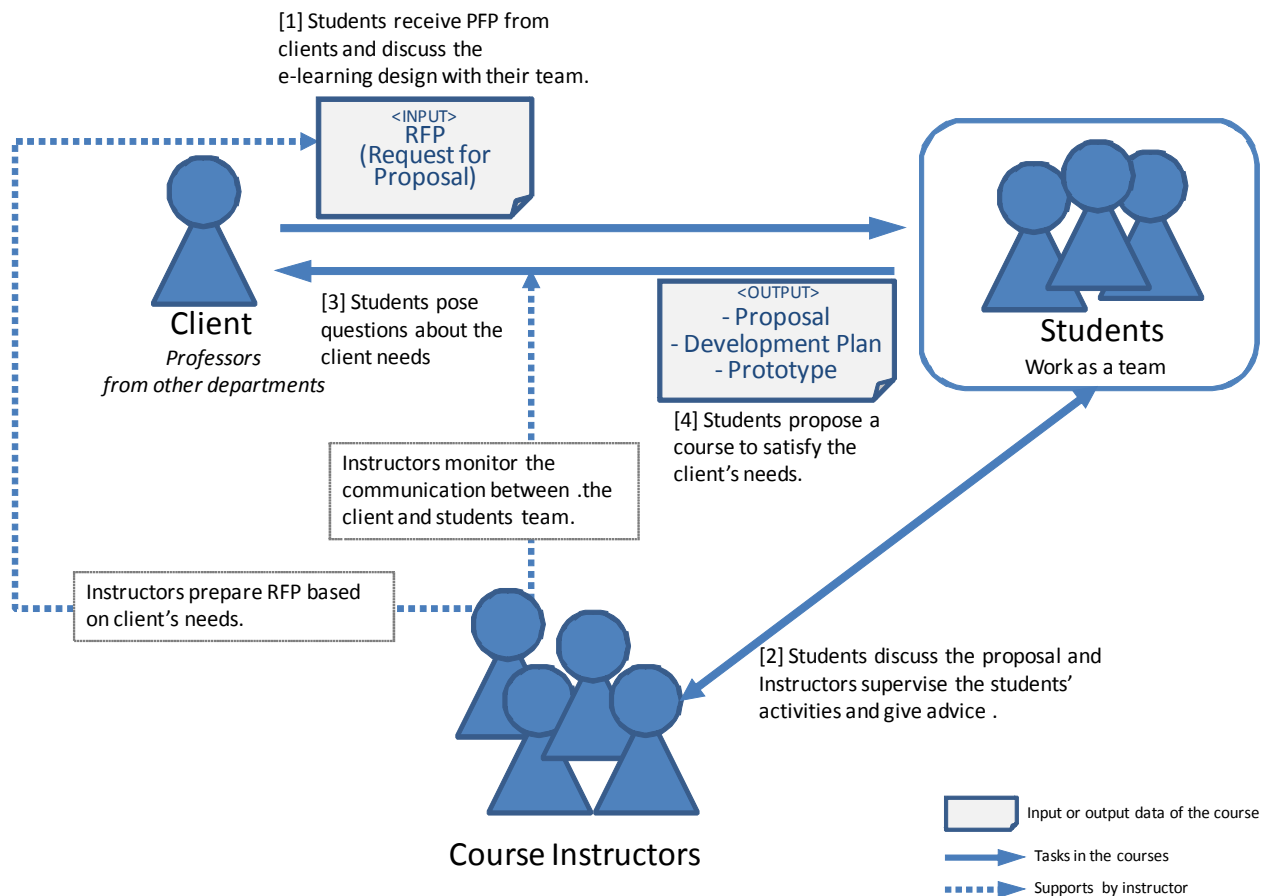
[1] Students receive PFP from clients and discuss the e-learning design with their team.

<INPUT>
RFP
(Request for Proposal)

Client
Professors from other departments

[3] Students pose questions about the client needs

<OUTPUT>
- Proposal
- Development Plan
- Prototype

Students
Work as a team

[4] Students propose a course to satisfy the client's needs.

Instructors monitor the communication between .the client and students team.

Instructors prepare RFP based on client's needs.

Course Instructors

[2] Students discuss the proposal and Instructors supervise the students' activities and give advice .

Input or output data of the course

Tasks in the courses

Supports by instructor

Figure 1: Overview of E-Learning Practicum I

E-Learning Practicum II

E-Learning Practicum II (Figure 2) is based on the result of E-Learning Practicum I; students manage an e-learning content and deliver the product. In E-Learning practicum II, students request the development of the course that they proposed to the staff in the institute. In the practicum, the important mission for students is not to create the e-learning material by themselves, but request the staff in the institution to create and manage the development process.

Students begin the practicum by reviewing the proposal submitted and, then, modifying its development plan created in E-Learning Practicum I; after receiving an approval from the instructors to proceed to the next step, they request their creation of the target course to the staff in the e-learning development institute. To convey explicitly their request to the staff and to inspect the delivery of the target course are the requirements in the practicum.

The students experience a real process of e-learning development throughout the two courses. It is very challenging to manage all the processes by having the students think and design freely, in the range of the course activities, and letting them make decisions with the guidance of the instructors.
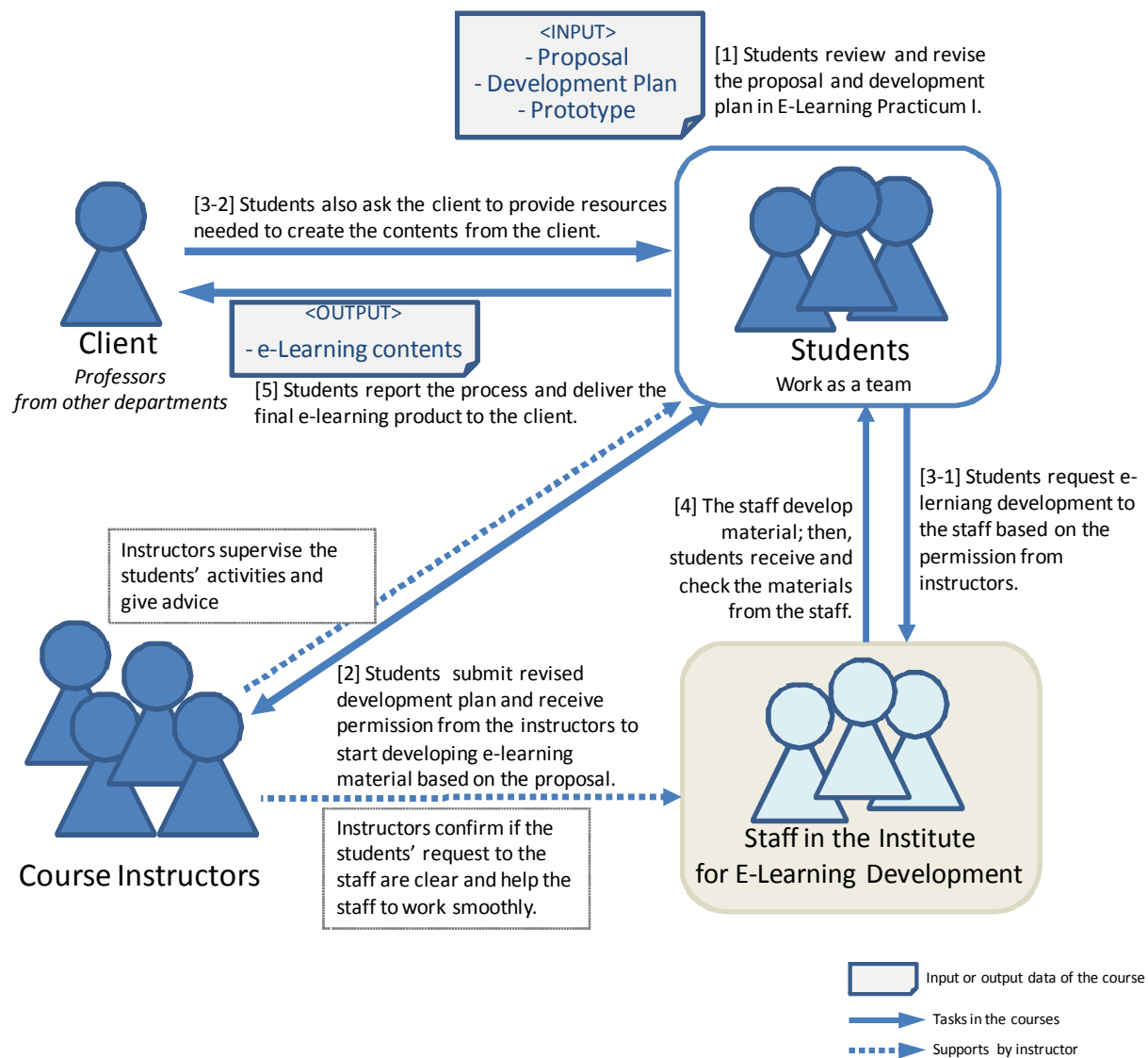
Figure 2: Overview of E-Learning Practicum II

Redesign the Courses With a Story

Since we launched the program in 2006, we have been able to provide E-Learning Practicum I & II, every year, by keeping our focus on those courses that give students the opportunity to apply the skills and knowledge that they learn in this program. From 2008, we have employed a Story-Centered Curriculum (SCC) approach in this master's program, which is used for curriculum-level design by providing architecture for higher scalability without losing the learning-by-doing nature of Goal-Based Scenarios (GBS) (Schank, 2007). The SCC unites multiple courses that students usually take, concurrently, within a given semester, by introducing a story from a real-world

situation and common to multiple courses (Suzuki, Nemoto, Oyamada & Shibata, 2009). The two practicum courses were also embedded in the SCC, and we redesigned the courses to fit into the SCC context.

In the SCC, students take courses linked by a consistent story in which the role of the student is a company member who is in charge of the e-learning development. This story is a continuation from the prior semester, and in the second semester that the E-Learning Practicum I is conducted, the student is dispatched from the virtual company to the university as an intern in a business-academia collaboration. As an intern, the student works at the Institute for E-Learning Development the university, and designs and develops e-learning contents with a client, which is related to E-Learning Practicum I & II, directly. The tasks in the two courses are the same as before the SCC was inserted, but the context of the courses and the mission of the students became clearer with a story with a concrete context.

Added Contents in the SCC

When we employed the SCC, we added and modified the contents to conduct it more smoothly and effectively. Bellows are the contents we added:

- The mission and role that connect the two courses, E-Learning Practicum I & II
  The two courses are closely tied; E-Learning Practicum I is the design part and E-Learning Practicum II is development part in the e-learning development process. However, some students had difficulty depicting the whole process, because this is divided into two different courses. Students tend to concentrate on tasks at hand and easily forget to look at the whole process in the two courses. By providing a detailed mission and role helped both students and instructors to get a grip on the process in the two courses.

- Stakeholders information surrounding the students
  Students face two types of professors in the courses: the course instructors and clients. In addition to the two stakeholders, the students work with staff in the Institute of e-Learning Development of the university. The three types of stakeholders have a different role so that students always need to get a clear picture of the relationship of stakeholders. Not only did we add a written description, we added pictures of graphic information about the stakeholders as a resource.

- Intentions and relationships among tasks
  By following a story, as interns the students are required to complete tasks and assignments at each stage, which means that the students could do the tasks sequentially; but we want the students to connect and review each task as one inclusive task. We added the intentions of each task and the relationships among them to help the students understand what they are doing and why it is needed.

- Relationship of the tasks to the assignments of other courses
  The program set the two courses as a place for using and combing the skills and knowledge that students acquired in their prior courses. When we redesigned the two courses, we reconfirmed the relationship of the tasks to the assignments in other courses.

- Information about each task such as the outcomes requirement, with examples
  The information are not related to the SCC directly, rather they are for course improvement. Students often lose their way, and sometimes they do not understand the image in which to create the required materials so that we added additional resources to enrich the students' product.

Discussion

Throughout revising and analyzing every year we collected several findings and then applied into the course material of the next year. The difficulties lay in the degrees how much we let student try by themselves with appropriate guidance and when and how much we need to provide helps to the students. It takes time students take time to understand the stakeholders, in the practicum, and how to work with them and the resources. We prepare several blank and completed templates as well as several mock examples of, for example, prototypes, final products, proposals. Also, we create prospective questions and products before the course starts and get a consensus from the instructors. We do not use the same course provided by the clients, because those are real courses that do not need to be developed twice; therefore, the target courses in the practicum are always new for the instructor and for the student. Reviewing and adjusting the degree of difficulties of the students' tasks is very challenging. At the presentation, we will introduce the findings with the feedback from the students as a guide for developing story-type authentic learning.

References

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