Use of Project Management in Training Services
- A Case of Asian IT Human Resource Development-

Akira Ikuma , Instructor, Hitachi Information Academy Co., Ltd.
Tetsuya Watanabe , Hitachi Information Academy Co., Ltd.
Kazunori Sadachi, Hitachi Information Academy Co., Ltd.
Atsushi Onozaki, Hitachi Information Academy Co., Ltd.

Abstract

To form and promote the base of IT human resource cross-hauling in Asia, Center of the International Cooperation for Computerization (CICC) in Japan is undertaking efforts to promote human resources that can manage IT projects in Asian nations, based on the IT skill standards of Japan.

CICC thus entrusts Hitachi Information Academy to plan, develop, and execute training courses for the IT human resources of Asian countries. For the first time, we have applied the project management system of the Information Technology Group of Hitachi Ltd., in order to solve the problems facing this training project.

The project was successfully executed according to plan, and we have proven this technique effective in regard to training services. This result is now being applied to all subsequent training service projects.

Keywords & Phrases: human resource development, training service, information technology engineer

1. Introduction

Our training services are classified into periodical training and customized training.

A periodical training service refers to a standard service with its content and yearly schedule fixed. A customized service, on the other hand, does not often allow us enough time for development or execution, as we customize our service based on the specifications provided by each client.

Our training service has traditionally been planned, developed, and executed by the instructor who is in charge of each specific training course.

With regard to this particular training service, which was adopted by the CICC in FY2005, we faced a five-month development period and undertook the development and execution of 12 courses in English. It would be impossible to meet this challenge using a development method that depends solely on an individual staff member's skill.

Against this backdrop, we built and executed an in-house project by introducing, for the first time, the organizational project management method based on the PMBOK. The following is a report of our efforts.

.

2. Outline of the Project

• **Project period**
  Apr. 2005 through Dec. 2005 (Development: Apr. through Aug.; execution: Sept. through Dec.)
• **Training period**
- First training: Sept. 5, 2005 through Oct. 14, 2005 (eight trainees), 28 days
- Second training: Nov. 7, 2005 through Dec. 16, 2005 (10 trainees), 28 days

3. Major Issues Identified at the Start of the Project

The major issues we faced at the start of the project included the following.

(1) There was a lack of experience, either in the development of an English e-learning course or in project management courses.
(2) There was the need to newly develop a total of 12 courses within a limited five-month period, including six e-learning courses and six training texts. The delivery deadline for the e-learning content was particularly difficult, as texts had to be prepared in Japanese and then translated into English.
(3) Lectures were to be given entirely in English.
   There was a need to secure human resources that are fluent in English and that have had instruction experience from both in-house and from the outside.
As development of one course usually requires a period of at least one month, we needed to devise a new development method in order to develop 12 courses in five months. In particular, the e-learning course, highlighted as one of the major issues, required extra effort, as the content is prepared in Japanese and translated into English, before proceeding to the e-learning deployment process.
The target trainees for this particular training consisted of a select group of people from various Asian countries with poor Japanese speaking ability. Accordingly, lectures were to be given in English. Although the lecturers may be fluent in English, they are not necessarily skilled instructors of project management. As we were unable to secure the necessary human resources in-house, we decided to secure them from outside as well.

4. Application of Project Management to Overcome Issues Faced

(1) Measures taken to overcome issues faced
   Promote the project by introducing a project management system.
   As our company did not have a project management system in place at that time, we used for our reference the system implemented and the templates used by the IT department of Hitachi, Ltd. We then broke them down for use in our company and applied them to our training course development/execution project for the very first time. We also utilized the progress meeting material template of said department to create a new breakdown version suitable for our company.
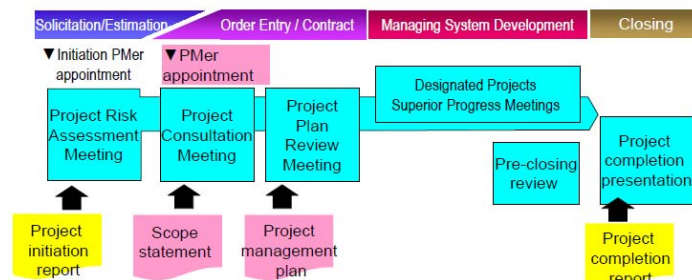

Figure 1: Project management system

   Implement project management based on a plan-focused PMBOK.
   We prepared a scope description (hereinafter referred to as the "service specification"), a project management plan, and a WBS, and obtained the approval of our stakeholders. These documents formed the basis for future projects.
   Clarify work distribution through the creation of a WBS.
   We prepared a work distribution chart by using a WBS as the basis, and clarified the role and responsibility of each staff member from the planning stage.
   Build a system by securing Project Management Professionals (PMPs) from both in-house and from the outside
   In developing and executing training courses, we gathered PMPs and included them in the project's organization. Using PMPs[3] promotion initiatives commenced in the office at the end of 2004, and we secured eight in-house PMPs for practical purposes and five PMPs from the outside, thereby resulting in 13 PMPs out of a total of 21 project members.
   Secure in-house development staff members fluent in English.

As all of the texts used for the course had to be prepared in English, we secured well-versed English speakers from different business offices across the company.

(2) Motivation and target-setting

We clarified the definition of the project's success. As the stakeholders' major requirement was profit and loss improvement of the project, we established specific target values, including a reduction in procurement cost and a reduction in man hours, etc.
Build a project system.
We prepared a WBS early on, clarified work distribution and responsibility, and secured project staff members across the company.

(3) Application of project management
Integration and scope management

We prepared a provisional project management plan during the initiation of the project, and obtained stakeholder approval for the project management plan at the official launch of the project. Regarding project execution, we presented an updated project management plan at the monthly follow-up process meeting, obtained approval from stakeholders, and distributed to them the approved version.
Service specification and the WBS
We prepared a provisional service specification and WBS at the initiation of the project, and obtained approval for the service specification and WBS during the official launch of the project. Regarding project execution, we presented and obtained approval for an updated service specification and WBS at the monthly process meeting.

Figure 2: Project management plan, Project scope statement, and Project WBS

Time management—application of the Microsoft Project

We decided to use the Microsoft Project as a time management tool to manage planning, execution, monitoring, and control. We also gathered schedule progress information on an ongoing basis, and updated it after making adjustments.
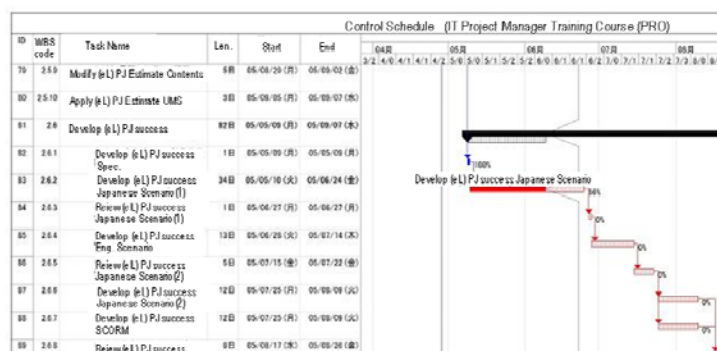

Figure 3: Schedule management chart

Cost management—cost management table

We prepared a cost management table based on the WBS, and made a monthly report to facilitate the visual understanding of cost trends.

Quality management

We prepared a "text quality check sheet", based on the subject specifications of each course, and used it as the quality standards at the time of review. A report on the results of the review was prepared in tabular form, which was used to confirm the corrections made and to monitor for any correction failures.

Human resource management—personnel management plan (project structure and a Responsibility/Assignment Matrix (RAM)

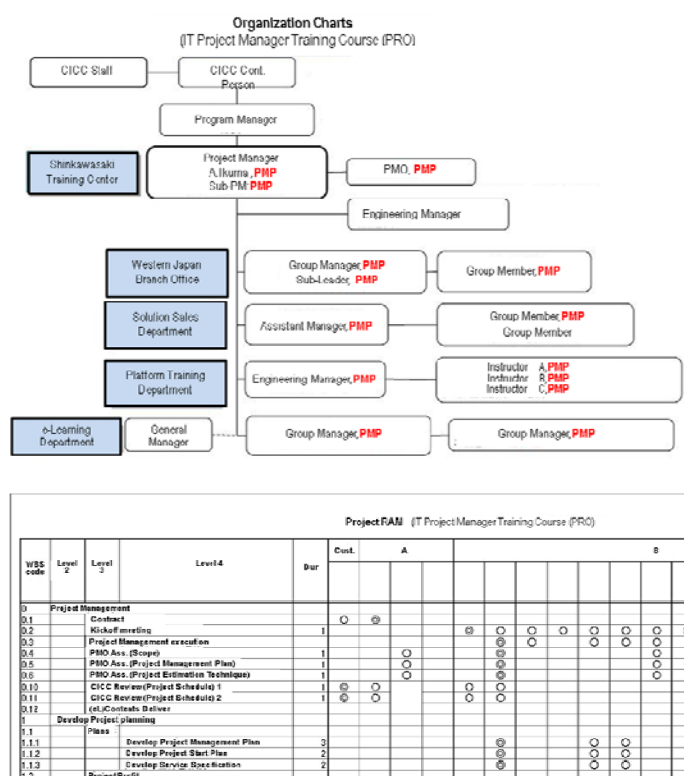In executing this project, a PMP was appointed as the sub-leader.

Figure 4: Project Organization Chart and the RAM

We prepared a RAM based on the WBS, and clarified responsibility-sharing among the stakeholders during the launch of project. We updated the RAM and distributed it to stakeholders, if any change was

made to the structure during project execution.

Communication management

We created a project performance report by customizing the project progress report template of the IT department of Hitachi, Ltd.

Figure 5: Project Performance report

Figure 6: Observations/pending issues follow-up chart

Risk management—risk register

As for risks, we prepared a risk register during project planning, and followed it up regularly to monitor if risk measures were taken.

Figure 7: Risk register

Procurement management—procurement management plan

As we devised the project's planning, we prepared a procurement management plan, which included the selection of outside suppliers. Regarding project execution, we monitored and followed-up with the execution based on the procurement management plan.

5. Results of the Project

(1) Development of courses

We successfully completed the development of courses according to the original schedule, despite the limited delivery period of developing 12 English courses in five months. This was realized by the use of the project management system of the IT department of Hitachi, Ltd. and through the adoption of plan-focused project management based on the PMBOK.

Despite this short delivery period, we successfully developed training courses that are in conformity with quality standards, through the development of courses designed by PMPs and experienced lecturers sourced from both inside and outside. In particular, because advance preparation, such as study meetings

concerning PM terminology, including Japanese-to-English translations, was unnecessary prior to text review, the process was effectively shortened.

During project execution, we set a specific numerical target for each item, in order to improve the profit and loss of the project, which brought about a dramatic improvement.

(2) Execution of training courses

Group teaching and e-learning were all implemented in English. The cross-organizational recruitment of fluent English PMPs from both in-house and from the outside and the allocation of them to respective courses enabled us to execute training that was highly evaluated by the trainees.

With the use of the RAM during training, four-month training courses were efficiently executed.

Lecturers of respective courses and the secretariat, who were in different locations, could smoothly communicate and take over necessary tasks at the training venue via e-mail and through the use of a contact list provided at the training venue.

6. Organizational Process Assets (Lessons learned)

(1) Initiating and planning process group

We prepared a service specification and project management plan that were suitable for our business plan, and used them as the basis for the project. We also prepared process meeting materials in a similar way.

We decided on the system and division of roles based on the WBS. As this information was disseminated to the parties concerned at an early stage, we were able to smoothly initiate the project.

The Microsoft Project was used for the creation and management of the schedule. We found that schedule management was highly effective through the use of this tool, which we made use of for the first time. However, the development of human resources that are capable of making full use of it remained an issue.

The preparation of provisional versions of the project management plan, service specification, and WBS during the beginning of the project, before project kick-off, made it easy for us to explain such things to stakeholders.

(2) Executing, monitoring, and controlling process group
Content development

The English translation was partly managed internally, thereby contributing to a shortening of the process and a reduction in cost. We could also keep the results as in-house process assets.

As the English translation and content creation were entrusted to different suppliers, the content had to go through major alterations in the final stage. We learned the lesson that English translation and content creation should be managed by a single company.

We enhanced the efficiency of the course check and review by displaying it on a large screen with the use of a projector, thereby reducing document distribution.

The adoption of a speech synthesis method for the narration greatly contributed to enhanced efficiency in making alterations.

The secretariat and the execution of training courses

As details about the reports to be prepared by respective lecturers were not identified in advance, it took some time for them to prepare such things after the completion of training.

A takeover message created each day by the secretariat was effective in understanding the day-to-day situation.

We prepared on the risk register five different PM crossword puzzles as a contingency plan to prepare for extra time in e-learning. Such situation actually occurred, and we found it very effective.

(3) Closing process group
Preparation of a training report

As for work distribution concerning the preparation of the training report, we decided in advance on a creator, reviewer, and approver, by using a RAM.

Training reports were created twice. As the content and volume of reports were not understood in advance when the first training report was created, it took more time than expected. We secured enough time for preparation of the second report by applying the lessons learned.

7. Conclusion

By using the project management methods of the PMBOK, we planned an in-house project, and developed and executed a training service.

It was proven that the project management system we introduced was also effective in developing and executing a training service by breaking it down for use in the projects of a training company.

At the project completion report meeting, we explained to the in-house staff members that the project was executed in accordance with this specific project management method and that it produced good results. On the basis of this achievement, it was decided to use the project management method adopted in this project for controlling training course development and for projects that are to be launched in the future.

The deliverables of this project, including the "service specification", "project management plan", "project progress control chart", and "risk register" were introduced as standard templates for project management within our company.

The upcoming challenge for us is to build a system that will allow project management to take root and to make constant efforts.

Reference

[1] "A Guide to the Project Management Body of Knowledge (PMBOK Guide), 4th Edition", Project Management Institute Inc., 2008

[2] Project commissioned by the Ministry of Economy, Trade and Industry, "Development of Foundations for an Information Economy (Asian IT Human Resource Development) Project" FY2005, Center of the International Cooperation for Computerization

[3] Akira Ikuma, et al., "PMP Perfect Master", Hyogensha, 2010

[4] Written and edited by Kaoru Nakamura, "Building a PMO (Project Management Office)—Cases and Practice", Soft Research Center Inc., 2007