CASE STUDY

BERSIN & ASSOCIATES

Virtual Classroom Technology

Hitachi Data Systems Establishes Implementation Framework for Virtual Instructor-Led Training Programs

—**Chris Howard**, *Principal Analyst* | December 2006

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IN THIS CASE STUDY

Virtual classroom technology is reaching mainstream acceptance as a platform for rapid and blended learning. As a result, large and mid-size enterprises are beginning to offer virtual instructor-led training (vILT) to a wider audience of learners. Hitachi Data Systems, a leader in the data storage market, has established a framework for developing and delivering vILT, including process flow, best practices, and instructional guidelines and recommendations. Virtual classroom technology is delivered via a fully hosted, on-demand, software-as-a-service application.

Although vILT currently is in its infancy at Hitachi Data Systems, the company's goal over the next two years is to roll out virtual classroom programs for employees, partners and customers. This case study will explore how Hitachi Data Systems:

- Determines whether a requested course is appropriate for vILT;
- Follows a detailed process plan for developing virtual classroom courses;
- Identifies and promulgates best practices in vILT development and delivery;
- Specially trains and qualifies vILT instructors;
- Provides vILT instructors with guidelines and recommendations; and,
- Handles instructor and student resistance regarding virtual classroom technology.

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Company Overview

A wholly owned subsidiary of Hitachi, Ltd., Hitachi Data Systems is a leading supplier of storage hardware, software and services. Through products, services and collaboration with valued partners, Hitachi Data Systems' innovations empower its customers to succeed by:

- Securing their storage infrastructure and information;
- Reducing the complexity of managing that infrastructure;
- Enabling their applications to better leverage that infrastructure; and,
- Accelerating their time to profit.

With an employee base of more than 2,900, Hitachi Data Systems conducts business directly and through resellers in the public and private sectors in more than 170 countries and regions, including the rapidly emerging economies in China, Southeast Asia and Eastern Europe. Its customers include more than 50 percent of the Fortune 100 companies[1].

Business Environment

In the market for high-end data storage devices and software, major Hitachi Data Systems competitors include IBM and EMC. The company competes by leveraging the global R&D resources of parent Hitachi to maximize customers' ROI and minimize their risk.

Hitachi Data Systems also enjoys a competitive advantage from its comprehensive and well-funded education and certification programs, which employ state-of-the-art technology and management principles.

Recently, Hitachi Data Systems saw an opportunity to fill a gap between instructor-led training in the classroom and self-paced e-learning. Using virtual classroom technology, the company has begun to deliver live, on-demand e-learning. With this vILT program, Hitachi Data Systems plans to meet the following business objectives:

KEY POINT

"vILT will have a **profound impact** on reducing time to competency for key audiences, reducing the cost of training for our partners and customers, and improving customer satisfaction by allowing us to be much more flexible to meet their demands."

Vice President, Hitachi Data Systems Academy

[1] Source: Hitachi Data Systems website, "Press Room," http://www.hds.com/press_room.

- Improve time-to-market delivery of courses to meet just-in-time training needs;
- Improve resource management to reduce the need for multiple instructor resources;
- Improve overall ROI of training programs by reducing audience travel expenses and billable time out of the field; and,
- Provide engaging, easy-to-consume online training that doesn't require special equipment.

Learning Environment

Hitachi Data Systems Academy serves the learning needs of the worldwide employee, partner and customer base of Hitachi Data Systems. The Academy operates a mixed revenue model, with some training being treated as an investment, and some as a direct and indirect generator of revenue.

The Hitachi Data Systems Academy provides a broad range of curricula, including technical, sales, management and soft skills training, which is delivered through local and remote instructor-led training, as well as high- and low-fidelity e-learning. A semiannual planning process with monthly review cycles ensures that learning programs are aligned to business initiatives both at the corporate and at the local levels.

Hitachi Data Systems Academy operates through five key groups (see Figure 1). Four of these groups reside within the central corporate structure:

(1) Business Interlock;

(2) Development;

(3) Operations / Certification; and,

(4) Technology.

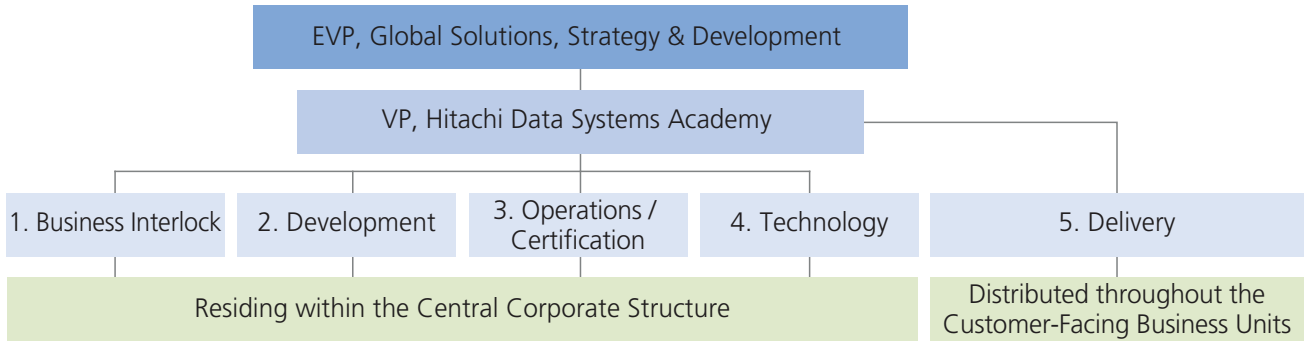
These director-level groups provide shared services to the worldwide enterprise. A single

(5) Delivery

"Business Interlock" is a process that **aligns** an organization's learning strategy and delivery with **business objectives**. The process helps companies prioritize learning requests and ensure that relevant content is available to build mission-critical skills.

group is geographically distributed throughout the customer-facing business units. All group directors report to a Hitachi Data Systems Academy vice president, who reports to the executive vice president of global solutions, strategy and development.

Figure 1: Data Systems Academy Organization Chart



Source: *Bersin & Associates, 2006.*

The **Business Interlock** group is tasked with analyzing and prioritizing learning requests, gathering requirements, and providing the formal linkages between learning outcomes and business objectives.

The **Operations** group handles budget management, contracts and administration, hosting of webinars, and measurement and metrics. It is also the focus for global partner management.

Certification is integrated throughout the processes. The Hitachi Data Systems Certified Storage Professional Program seeks to validate the skills and knowledge of Hitachi TrueNorth™ Channel partners (as well as customers and personnel) in the areas of storage architecture, implementation and administration utilizing products, solutions, services and technology offered by Hitachi Data Systems.

The **Technology** group acts as the liaison between Hitachi Data Systems Academy and the corporate IT department. The group researches and analyzes new technologies and tool sets, and presents its findings to decision-making managers within the Academy.

★ BEST PRACTICE

At Hitachi Data Systems, the certification program manager has also been tasked with developing the virtual instructor-led training program and has the additional title of education manager for vILT. Designing a vILT program with dedicated resources is a best practice that more and more learning organizations at large enterprises are adopting.

Virtual Instructor-Led Training

Hitachi Data Systems has been running live and recorded "webinars" for some time using WebEx products and technology. These sessions are characterized by one-way broadcast communications primarily focused on product updates. There is little student / instructor interaction; no student participation, collaboration or situational feedback; and, no problem-solving, exercises, simulations or labs.

While the webinar is ideal for meeting certain learning objectives, such as informal knowledge transfer or rapid e-learning, it is less useful as a surrogate for an engaging, interactive classroom experience. In 2005, Hitachi Data Systems decided to boost the fidelity level of its webinars by using the same WebEx technology to deliver vILT, sometimes referred to as "live e-learning."

In 2005, Hitachi Data Systems decided to make the move from webinars to vILT by using the same WebEx technology to deliver what is sometimes called "live e-learning."

The program is still in its infancy – just 12 vILT courses were available at the time of this report. Currently, the vILT courses are offered only to Hitachi Data Systems sales and technical personnel; they will become available to outside customers and partners once the new training program and technology has been tested and vetted by internal users. Today, vILT courses are being delivered by third-party contract instructors, but internal Hitachi Data Systems Academy instructors are getting trained and qualified to deliver vILT courses.

Impetus for Change – Business Drivers

Many factors were behind the move from webinars to vILT. According to the vice president, Hitachi Data Systems Academy, the company wanted to:

- Improve field sales readiness by providing short (one- to two-hour) product update technical classes that could not easily be done with self-paced e-learning;
- Reduce student costs by eliminating travel and hotel costs;
- Reduce student time out of the workplace by eliminating travel time;
- Support customer and partner need for more flexible scheduling;

Figure 2: Five Phases of the vILT Program	
1. Analysis	Perform an analysis that will identify possible barriers to acceptance of vILT.
2. Design	Strategically design instructional objectives around the scope of the vILT program.
3. Resource Preparation	Identify and train facility instructors.
4. Construction	Obtain commitments from the Business Interlock group of course development projects that will be delivered as vILT; track and manage course development.
5. Implementation	Begin to implement new courseware; training of the delivery tools, new processes and activities; tracking and feedback; and, marketing.

Source: *Bersin & Associates, 2006.*

- Provide classes to individuals located in multiple places and time zones;
- Reach large audiences relatively quickly;
- Provide offerings that are competitive in the market; and,
- Exploit remote lab capabilities to give enhanced student experiences.

A plan for developing the vILT program was built around the five phases as shown in Figure 2.

Defining vILT

Hitachi Data Systems Academy defines vILT as "… a web-based classroom experience delivered live to a student's desktop or laptop through the Internet." The Academy also makes a strict distinction between webinars and virtual classrooms. According to Hitachi Data Systems Academy, "webinars" are typically presented to large audiences by presenters who are subject-matter experts (SMEs), but who may be novices in the use of online presentation tools. In webinars, no attempt is made to regularly engage the active participation of the audience, since one-way communication and large audience size normally preclude the practicality of this.

By contrast, the virtual classroom prescribes small class sizes and a rigor that requires the active participation of each student at a time

Unlike webinars, vILT is designed to deliver **compelling learning experiences** in a virtual classroom environment during conveniently scheduled class times.

interval roughly equivalent to each five minutes. Students are engaged with multimedia presentations, shared applications and virtual labs. Participants are allowed to interact with instructors, e-chat with classmates or ask questions in real-time without disrupting class flow. The sessions support "learn by doing" with hands-on labs and real-world simulations.

Framework for Considering vILT

The learning organization at Hitachi Data Systems offers three formal modes of training: traditional classroom training (ILT), self-paced e-learning and virtual instructor-led training.

At the present time, learners take ILT offerings for core courses and vILT offerings for delta training, such as learning the new features of a product update. However, Hitachi Data Systems Academy plans to develop vILT core curriculum offerings. To eliminate the possibility of competition between the modalities and cannibalization of ILT revenues, curriculum titles will not be offered in both vILT and ILT formats.

The following framework helps the Business Interlock group and the Hitachi Data Systems Academy instructor / facilitator to determine which delivery format is most appropriate for a new course request.

Classroom ILT Training – Face-to-face training is effective, but requires instructor and students to be in the same place at the same time. Hitachi Data Systems has found that particular types of learning activities, such as workshops, job training and coaching, are best-suited to classroom ILT training.

Self-Paced E-Learning – Self-paced computer-based training (CBT) and web-based training (WBT) provide maximum convenience to students and allow developers to use more multimedia. Hitachi Data Systems Academy uses this mode of training for simulations, online case studies and interactive learning modules.

Virtual Instructor-Led Training – Virtual classroom sessions are delivered live, with students accessing the class through their own Internet connection. This allows for interaction between the learners and the instructor, as well as among the students. Typically, the class

Hitachi Data Systems offers three modes of training: traditional classroom training (ILT), self-paced e-learning and virtual instructor-led training (vILT).

includes audio, video and text chat. Hitachi Data Systems Academy targets live e-learning for application exercises, online coaching and interaction between students. Online feedback, assessment, chats and instant messaging are advantages in this type of learning. According to the Hitachi Data Systems Academy education manager for vILT, advantages of the virtual classroom training include the following.

- **More effective than just reading the manual** – Most working people do not have the motivation or skills to sit down and teach themselves by reading a manual or self-study guide. Manuals are usually more effective as a reference rather than for learning. Self-study guides may be unexciting and unable to engage the student. vILT can attract a student's interest and can even be enjoyable to attend.
- **Highly cost-effective** – A major consideration in training is cost. As the number of learners being trained increases, it becomes more cost-effective to develop a vILT class than to send students to a physical classroom. This includes situations where many learners must be trained at once, as well as cases of high turnover of personnel or frequent product updates.
- **Addresses the needs of dispersed audiences** – Another situation is when the learners to be trained are widely dispersed. Travel time and costs to send learners to a class can be prohibitive, and sending trainers to the learners may not be practical. The virtual classroom eliminates these issues.
- **Standardized** – Since different instructors and trainers have different styles of instruction, all personnel may not be receiving the same quality of training. Virtual classroom instruction assures standardization of training and content presentation because more students can be reached by each instructor. Thus, fewer instructors can be used, allowing a training organization to reduce its reliance on less qualified instructors.

The Hitachi Data Systems training organization has also discovered that there are some drawbacks to vILT, which include the following.

- **Need access to a computer / lab equipment** – Students must have access to computers (i.e., at home, at work or at some training

With vILT, Hitachi Data Systems has realized several advantages, including **cost-savings and higher levels of training effectiveness**.

location) in order to attend vILT classes. They must also have access to any lab equipment that may be required as part of the training. Computer or lab access may not always be possible.

- **Need high-speed Internet access** – They also need to have high-speed access to the Internet. This can be a problem for training field personnel who may have computers but can't readily access a broadband connection for just-in-time training or guidance.
- **Personnel resistance** – Some learners have phobias concerning e-learning or using a computer to attend a vILT session, while others balk at any type of computer interaction. They may feel it is too impersonal. Some learners may simply freeze up and may not participate when confronted with learning on a computer.
- **Must be done well** – vILT must be designed with instructional quality and effectively delivered in order to capture student interest and result in positive learning outcomes. Hitachi Data Systems Academy has observed that students learn more from an ineffective teacher in a classroom than a poorly designed virtual classroom course. In a classroom, the instructor can at least see whether the learner is sitting in their seat and paying attention. With vILT, the learner can literally step away from his / her computer without disturbing the instructor.

Hitachi Data Systems has found that access to high-speed connectivity and computer systems can be drawbacks to vILT, as well as resistance from employees to use and learn from this method of training.

Hitachi Data Systems Academy has developed a framework for determining whether a given set of content is best delivered using ILT or virtual classroom instruction. In general, content that is most appropriate for vILT has the following characteristics.

- **Urgency** – Content that is urgently needed to meet a business objective can be developed more readily for vILT than ILT. For example, new releases of a performance product, called Hitachi HiCommand® Tuning Manager software, are delivered every six months. It is imperative that these product updates be communicated to the Hitachi Data Systems pre-sales force in advance of the product's general announcement date. A three-hour vILT on the product release – focusing on the new enhancements – can be developed quickly and delivered in a timely fashion.

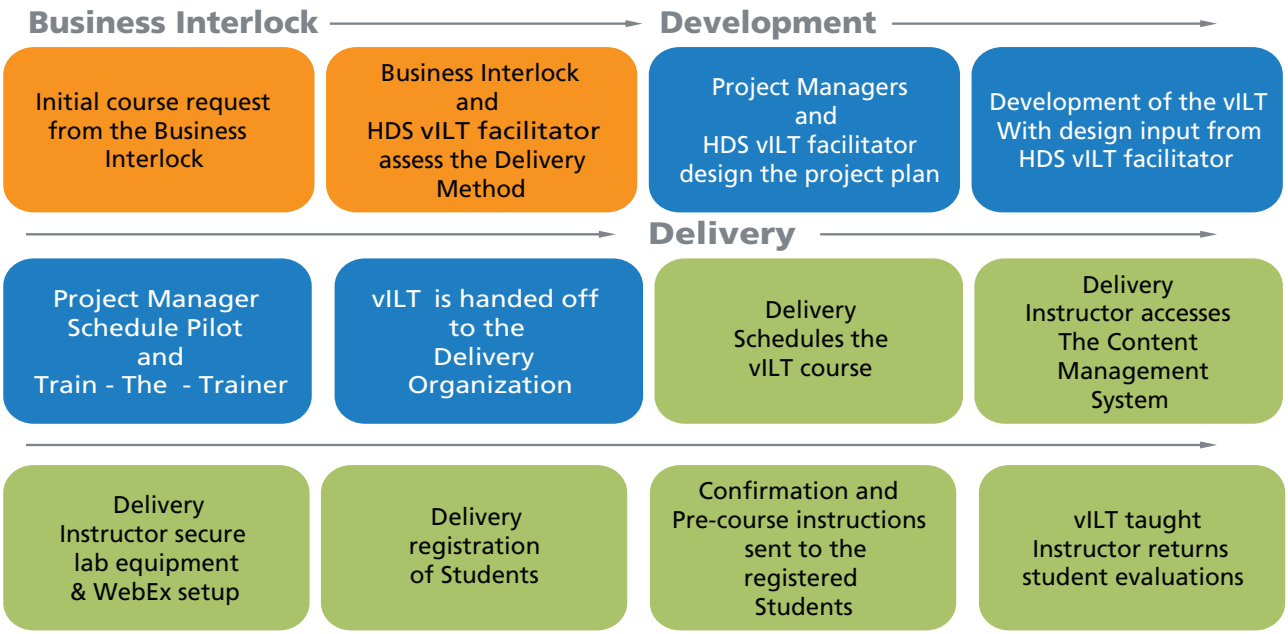
- **Quick delivery** – Content that can be delivered in a short session of 90 minutes to no more than three hours is ideal for vILT. Most of the vILT courses developed and delivered by Hitachi Data Systems are between two to three hours. These same classes might consume nearly an entire day for ILT students. In this way, Hitachi Data Systems is using vILT to drive down student costs and encourage uptake of new training courses.
- **Delta** – This is content that augments existing knowledge or skills rather than developing new skills or learning new knowledge. Hitachi Data Systems Academy may offer a five-day ILT course on a 1.0 release product and then develop a half-day vILT class on the 1.1 release. A recent example of this is when Hitachi Data Systems Academy delivered a three-hour vILT class on HiCommand Tuning Manager software V5.1. This particular vILT was developed for pre-sales technical employees who already had a good knowledge of Tuning Manager software V5.0, but needed to understand the new enhancements / functions of the new V5.1 release.
- **Hardware versus software** – Hitachi Data Systems Academy finds that software training can be successfully delivered using vILT, whereas hardware training is more effectively delivered in a classroom setting. For example, Hitachi TagmaStore® Storage Installation & Maintenance courses (in which students learn how to install and apply maintenance to Hitachi storage systems) are much better suited for the traditional classroom during which actual hands-on hardware training is possible.

Hitachi Data Systems has developed a process to determine if vILT is the best method of training in response to a business need.

Development Plan for vILT Courses

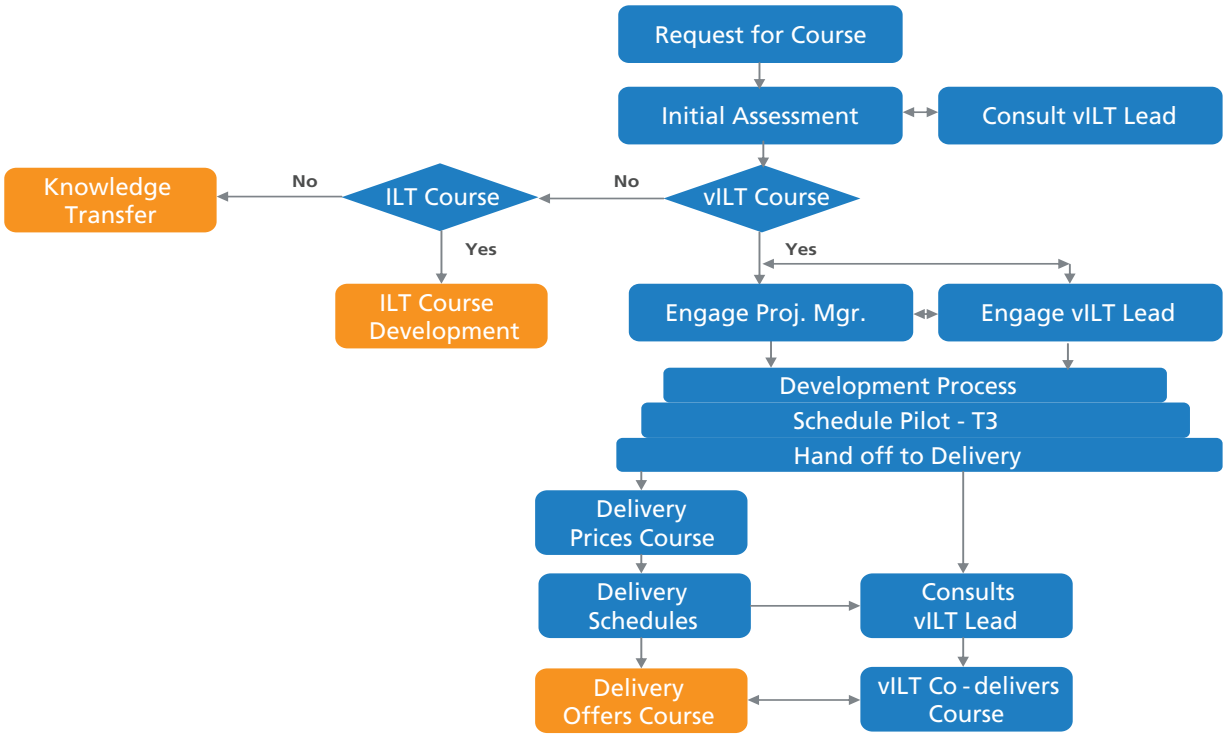
Whether vILT or ILT, every Hitachi Data Systems Academy training class originates with a Hitachi Data Systems business unit, which describes the fundamental learning requirement. Hitachi Data Systems Academy has developed a detailed plan that describes the process flow from the time a business group requests a course to the point of delivery (see Figures 3 and 4).

Figure 3: High-Level View of vILT Course Development, Hitachi Data Systems Academy



Source: *Hitachi Data Systems, 2005.*

Figure 4: Detailed Process Flow of vILT Course Development, Hitachi Data Systems Academy



Source: *Hitachi Data Systems, 2005.*

Process Flow

I. Course Request

A. The initial request for a course usually comes from a business unit product manager. The Business Interlock faculty lead completes a training request form (Preliminary Learning Brief) and submits it for approval. If vILT course development is deemed possible, Business Interlock brings in a vILT lead instructor / facilitator from Hitachi Data Systems Academy to help evaluate the request, criteria and goals.

II. Initial Assessment

A. The Business Interlock group makes an assessment of the request to determine viability based on audience / market analysis, including community size, content stability, release timeframe and resource involvement.

B. The Business Interlock group and the vILT lead instructor / facilitator also review and evaluate the new Preliminary Learning Brief for the possibility of using vILT.

III. vILT Request Not Appropriate

A. The Business Interlock group and the vILT lead instructor / facilitator determine that the request or viability does not meet the criteria for the vILT based on audience / market analysis and resource involvement. The request is rejected as a vILT course and is continued as a physical ILT development project.

IV. Business Planning of vILT

A. Project managers and the vILT lead instructor / facilitator are engaged in the course development project.

B. The vILT planning process follows the same planning process used for the physical ILT planning with these additional trigger points.

1. The Project Manager and the vILT lead instructor / facilitator scope the request to determine if he / she is able to deliver the course independently or if the assistance of an SME is required.

a. In the event an additional second delivery instructor is needed, he / she is identified from the current ILT instructor pool (qualified virtual instructors).
b. The vILT lead instructor / facilitator, with the aid of the development project manager, identifies and secures the SME resource to offer to co-teach sessions of the vILT.

V. Development of vILT

A. The development process of the vILT follows the same procedure that is used for the ILT. All courses are built in-house by the Hitachi Data Systems Academy Development group using Microsoft PowerPoint.
1. During the creation of the course design and course description documents phase, the vILT lead instructor / facilitator supports the specific vILT related requirements.

VI. Learning Management System

A. Prior to delivery, a schedule of the new sessions for the course is created in the LMS; the vILT lead instructor / facilitator and the project manager are also included if their availability is needed to deliver the course.
B. The course description is written and posted into the Learning Portal.

VII. Schedule the Pilot and Train-the-Trainer Program

A. The development course project manager schedules the pilot and follows the same process as for an ILT pilot, including the vILT lead instructor / facilitator.

VIII. Hand off to Delivery

A. The Business Interlock group releases the vILT course to the Delivery group. The vILT process follows the same ILT procedure when handing off courses to the Delivery team.
B. The vILT lead instructor / facilitator is also included for any approvals relating to the updating of the vILT course description and submitting the course to the SME.

IX. Scheduling the Offerings

A. Course schedules are the responsibility of the geographic delivery managers. vILT instructors / facilitators are also included when their resources are required for the delivery of the course.

B. Course pricing is the responsibility of the geographic delivery managers.

Best Practices in Development

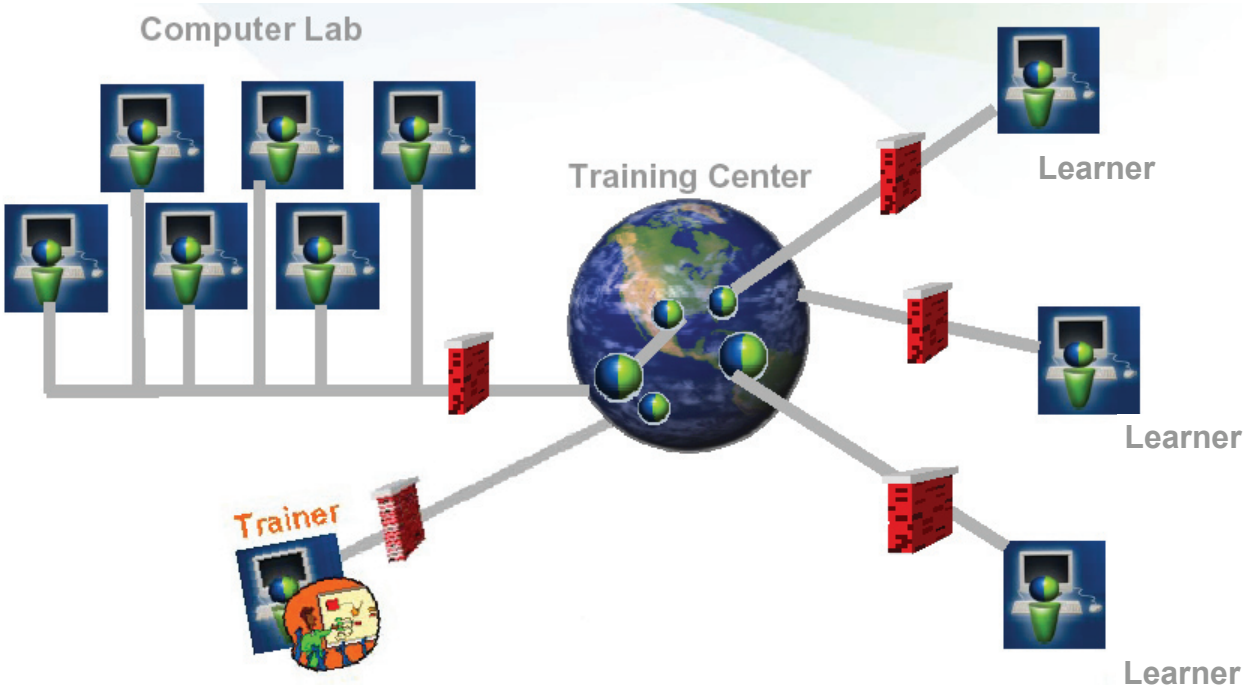
Hitachi Data Systems Academy has collected a wide range of best practices to help guide instructional designers and content creators to develop exceptional vILT courses. Some of these best practices come from the industry, while others were developed by Hitachi Data Systems.

- **Session Length** – Keep classes short in duration – less than three hours, if possible. If more than three hours is required, split the class into two sessions, although this is less preferable than having a single session per course. Multiple days will be more successful in a contiguous week rather than one day every week over several weeks.
- **Interaction and Communication** – Interaction among attendees and between the instructor(s) and students is a critical element of vILT. Designers and developers should utilize every tool at their disposal, including Q&A, chat, whiteboards, drawing, application sharing, "raise hands" and real-time feedback (such as polls / surveys). Interactions should occur every three to five minutes.
- **Exercises** – Exercises are another important mechanism of engagement. Instructors should keep attendees engaged by having them complete an exercise after every 10 to 15 slides. Examples of exercises might include having attendees match statements with answers or fill out a questionnaire on which products they have previously used.
- **Remote Labs** – Labs provide a high level of interaction and engagement. Remote learners practice on software applications, workflows and hardware products controlled by software in real time on remote lab computers. Trainers proactively manage the lab sessions remotely and help the learners (see Figure 5). Due to lab constraints, these sessions are usually limited to nine students.

★ BEST PRACTICE

Hitachi Data Systems has gathered a list of best practices to enable training professionals to develop effective vILT courses.

Figure 5: Hitachi Data Systems Academy Utilizes the Hands-on Lab Feature of WebEx Training Center



Source: *Hitachi Data Systems, 2005.*

Figure 6: vILT Development Tips

- Design discussions that build participation.
- Design case studies that engage learners.
- Design creative web-based role-plays.
- Determine the most effective feedback techniques.
- Utilize chat questions as a lead-in to a new topic.
- Use the chat questions as an open question to the audience before answering it.
- Vary the tool usage, do not overuse any one item.
- Build in areas for response and ways for students to join in with input.
- Develop ways to determine whether the student has a question or problem.

Source: *Bersin & Associates, 2006.*

Delivering vILT Courses

Hitachi Data Systems has spent considerable time and energy to ensure that Hitachi Data Systems Academy instructors (as well as contract instructors employed by Hitachi Data Systems) are properly trained in the use of virtual classroom technology, techniques and tools. The Virtual Classroom Technology Training Guide governs the requirements for all instructors who wish to teach vILT sessions at Hitachi Data Systems (see Appendix I).

Ideally, instructors are qualified and trained for both ILT and vILT, and Hitachi Data Systems Academy makes every effort to have the same instructors deliver both ILT and vILT courses for each product offering.

Resistance from Instructors

According to the education manager for vILT, one of the biggest hurdles was getting developers and instructors to understand and accept the concept of virtual classroom training. Some instructors and developers feared virtual classroom technology, while others were so confident they thought they didn't need special training on how to design and deliver vILT courses.

Instructors expressed two major objections to vILT. First, they feared the delivery technology and saw the new approach as undermining their job security as classroom teachers. Second, instructors were also concerned that the vILT method would not allow them to effectively interact with students.

To allay these fears and speed acceptance of virtual classroom method and technology, Hitachi Data Systems Academy designed and implemented a comprehensive qualification process for identifying potential instructors of vILT courses. A blended-training program uses simulations, live e-learning, ILT and self-paced e-learning to prepare instructors.

Instructors are evaluated to validate that they are qualified to teach via vILT. They are tested on their understanding of vILT techniques and technology, such as how to create polls and other interactions. Finally, they conduct a 'dry run' vILT class with a qualified co-instructor evaluating their performance.

Hitachi Data Systems Academy currently is using **contract instructors** to deliver vILT courses. This strategy gives the Academy **time to train and qualify internal trainers**. Training delivery managers in the customer-facing business units (who were initially skeptical of vILT) have come to recognize that customer demand exists for this new training product. At the time of this report, **approximately 90 percent of the Hitachi Data Systems contract trainers were qualified to deliver vILT, while fewer than five percent of internal trainers were vILT-qualified**.

Looking Forward

At the time this report was published, Hitachi Data Systems Academy reported nearly 100 percent positive feedback from employees who participated in the vILT pilot program. The sole exception was an employee who viewed a recorded vILT session and was unable to participate in any meaningful way. This experience reinforced the dictum that maximizing interactivity is the key to successful vILT course design and delivery.

Over the next 12 to 24 months, Hitachi Data Systems Academy plans to roll out a broad curriculum of vILT courses. The new classes, which will address the learning needs of both internal (e.g., employee) and external (e.g., customer and partner) constituencies, will be delivered by third-party instructor resources, as well as by Hitachi Data Systems Academy trainers who have been qualified and trained for vILT.

Hitachi Data Systems Academy plans to record all vILT classes, but does not want learners to substitute the recording for taking the actual class. Therefore, recorded sessions are made available only to students who have already completed the live e-learning course. Learners who attend a vILT class can use the recording as reference material or to fill in the gaps in their knowledge base.

Lessons Learned

In the process of designing and implementing a virtual instructor-led training program, Hitachi Data Systems has learned several important lessons that can be used by other learning organizations.

Webinars have a bad connotation – The education manager for vILT indicated that much of the initial resistance to virtual classroom technology came from instructors who had attended a webinar and developed negative connotations about live e-learning. The most successful solution is the ongoing education of all stakeholders on the differences between vILT and webinars, and how Hitachi Data Systems Academy vILT courses can deliver true interactivity to engage students.

Get a quick start by converting ILT courses – Once the vILT program was approved by corporate management, Hitachi Data Systems Academy didn't want to lose any momentum. There were many moving pieces – analyzing and designing the program, preparing resources, and constructing and implementing courses. To shorten the time to market, the decision was made to identify and convert several existing ILT offerings into vILT sessions. At the same time, Hitachi Data Systems

Academy was also careful not to cannibalize successful ILT courses by offering less expensive vILT versions. vILT sessions are designed to complement and supplement ILT classes, as discussed earlier (see section, "Framework for Considering vILT").

Get a firm commitment from all stakeholders – Undertaking a major new training initiative requires a firm commitment from all stakeholders. As a result, constant promotion and evangelization of vILT has been a major element of the education manager's job. As soon as a course is converted to or developed for vILT, the messaging of the program begins. The title of the offering and the method of delivery are clearly messaged to all training stakeholders, both internal and external. Customers and partners need to understand what the technology is and how to consume it. Hitachi Data Systems Academy personnel and internal Hitachi Data Systems employees who interact with audience candidates are also required to understand what the offering is.

Conclusion

Although it is too early to have any quantifiable metrics from the vILT program at Hitachi Data Systems, the development of this program serves as a model to other large enterprises with the resources and commitment to develop such an initiative. Hitachi Data Systems has experienced significant initial resistance from instructors, but now the vILT program is rapidly gaining acceptance as learners, instructors and business unit managers discover the benefits of virtual classroom instruction.

Appendix I: vILT Training Plan

vILT Training Plan: Virtual Classroom Product Training

The HDS Academy is currently using WebEx Training Center, a highly sophisticated interactive virtual classroom product for the delivery of live and on-demand online training.

Step 1. WebEx Training Center Training (Mandatory)

1A. Attend free online WebEx training by going to the training site, http://university.webex.com. The following Training Center classes are required:

Training Center Jumpstart – 45 minutes

Foundations: Facilitating Online Training (V4) – 90 minutes

Foundations: Scheduling , Reporting And Testing (V4) – 90 minutes

Advanced: Extending The Classroom – 90 minutes

Advanced: Using Hands-on-Labs (V4) – 60 minutes

Best Practices: Engaging Your Learners – 90 minutes

Times given are session lengths. WebEx gives these classes on a regular, ongoing basis, but intervals between some class offerings are longer than others. Given normal availability, you should be able to complete the above training within a two week time period.

1B. Read the PDF documentation - at the end of every online class. PDFs are distributed by the WebEx presenters to the attendees. These PDFs should be read in their entirety, and should be kept for reference. They are:

- WebEx Presenter Guide
- WebEx Facilitating Online Training Guide

- WebEx Scheduling & Reporting Guide
- WebEx Extending The Classroom Guide
- WebEx Using Hands-On Lab Guide

1C. There are numerous WebEx whitepapers on virtual classroom technology that can be obtained at www.webex.com.

NOTE: WebEx Certification programs are also offered through the WebEx University.

► Another excellent source of information on virtual classroom technology can be found by going to the Centra product website – www.centra.com. Centra is another recognized leader in online virtual classroom technology, offering online classes, whitepapers and certification programs.

Centra Whitepapers (Recommended)

At the Centra Home Page click on **whitepapers**. Recommended reading includes:

- "A Case Study Approach To Blended Learning"
- "Building A framework For Enterprise Learning"

There are other excellent white papers, as well, that can be found at this site.

NOTE: You will need to become a Centra subscriber in order to take some of the online training.

Step 2. Attend Hands-On Lab Presentation (Mandatory)

Attend the **Creating Remote Labs** presentation given by the lead vILT instructor. This will be delivered through a WebEx Training Center session. The presentation will focus on:

- WebEx Media Tone Network
- WebEx Access Anywhere software
- How to create remote 'Hands-On' labs

This session will be scheduled for candidate instructors upon completion of the mandatory WebEx virtual training.

Step 3. Attend A 'Live' Session (Mandatory)

Attend (as a silent participant) an actual WebEx Training Center session led by the HDS lead vILT instructor. The main purpose of this is to watch how the vILT instructor uses the various tools and techniques in:

- Engaging the participants;
- Sharing presentations and applications;
- Sharing the desktop;
- Using the various feedback options, including chat and Q&A;
- Using the available drawing tools and whiteboard facility;
- Using the polling feature for surveys and testing; and,
- Initiating and running the remote hands-on lab.

Step 4. Schedule and Deliver a 'Dry Run' vILT Session (Mandatory)

The new vILT instructor will deliver a 'dry run' vILT session. Attendees will be made up of student volunteers who are interested in the subject matter, and the HDS lead vILT instructor, and possibly a WebEx vILT instructor. The new vILT instructor will be asked to demonstrate the following:

- Create the remote hands-on lab environment;
- Schedule the vILT session;
- Use all learned techniques in engaging the participants;
- Sharing presentations and applications;
- Sharing the desktop;
- Using the various feedback options, including chat and Q&A;
- Using the available drawing tools and the whiteboard facility;

- Use the polling feature to create a survey; and,
- Initiate and run the remote hands-on lab.

At the end of the session, the HDS lead vILT instructor (and the WebEx vILT instructor, if available) will critique and offer constructive feedback on the session.

Step 5. Lead vILT Instructor's Recommendation

At the completion of this training plan, the HDS lead vILT instructor will either:

1. Recommend to the learning technology manager that the vILT instructor is ready to begin teaching using vILT,

OR

2. Advise the learning technology manager that the vILT instructor needs to spend more time reviewing and feeling more comfortable with certain areas of virtual classroom technology, prior to teaching vILT.

Appendix II: Table of Figures

About Us

Bersin & Associates is the only research and consulting firm solely focused on What Works® enterprise learning research. With more than 20 years of experience in e-learning, training, and enterprise technology, Bersin & Associates provides a wide range of services, including market research, best practices, benchmarking, vendor and product analysis, corporate workshops, corporate implementation plans, and sales and marketing programs. Some of Bersin & Associates innovations include a complete methodology for Learning Management Systems (LMS) selection and application usage, an end-to-end architecture and solution for training analytics, and one of the industry's largest research studies on blended learning implementations.

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