



## Case Study December 2002

# Learning Technologies in the Workplace Award Winner 2002 Hafner Inc.

The Education and Learning case studies examine outstanding education and lifelong learning programs and initiatives. This case study addresses e-learning.

### OVERVIEW

**H**afner Inc. manufactures high-quality textiles for home furnishing and apparel markets in North America and Europe. Among Hafner's specialties are high-quality stretch knit fabrics, which the company sells to apparel manufacturers and retailers. Hafner employs approximately 500 workers at its mills in Granby, Québec. The company regards the development of its employees as key to gaining and maintaining its competitive advantage in the textile industry, which currently provides direct employment for 54,000 people in Canada. Hafner, in partnership with the Textiles Human Resources Council (THRC), is committed to using technology to enhance learning in the workplace.

Prior to November 2000, Hafner developed its own instructional materials to equip its employees with knowledge of the textile production process. Instruction in the basic manufacturing process took approximately two weeks and was delivered in a traditional classroom setting.

Effective practices case study  
in employee training and  
workplace learning

**Name of Program**  
Textile Manufacturing  
Basics-Enhancing Employee  
Effectiveness

**Date Established**  
2000

**Skills Developed**

- Literacy
- Numeracy
- Communication
- Technical skills

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Delivering the instruction to employees in a classroom was problematic in a shift work environment, with tight production schedules. Hafner found that training new employees in the basic manufacturing process tended to be delayed until a class of 8 to 10 could be filled.

It was in this context that Hafner explored the use of electronic learning tools to deliver training in basic textile manufacturing to employees in a timely manner and in a format that could be worked around shift work and times of heavy production.

Realizing that developing its own computer-based training would require additional expertise and resources, Hafner teamed up with the Textiles Human Resources Council in 1998, to develop a multimedia, computer-based training program on textile manufacturing basics.

### **ROLE OF THE TEXTILES HUMAN RESOURCES COUNCIL**

The THRC is a non-profit, union–management partnership, which was established in 1994. Hafner is among the 12 founding member firms. The Council has a mandate to develop world-class training and education programs to enhance the skills of managers and employees in the Canadian textile industry. Today, the Council has more than 100 member companies.

In 1996, the THRC asked the consulting firm PriceWaterhouse to analyze the human resource needs of the Canadian textile industry. The assessment highlighted the need to develop tools to support the recruitment and training of employees in the textile industry, and to explore alternative training delivery mechanisms. In response to these needs, the THRC immediately began to develop training programs such as the Textile Management Internship Program for managers and employees in the textile sector.

During the course of extensive consultations with the Canadian textile industry in 1998, the THRC explored how best to adapt its training programs for delivery in the workplace, using learning technologies such as CD-ROM, computer-based multimedia programs, and the Internet. Based on the findings of a survey conducted that year, the THRC set to work developing a series of interactive multimedia training programs for textile sector personnel.

The Council used its Textile Management Internship Program and Hafner’s classroom-based textile curriculum as a template for its new computer-based training programs. The Internship Program was designed to help young science, technology, and engineering graduates enter careers in the Canadian textile industry. The 12-month Internship Program provides participants with paid work experience, enhances their knowledge of textile technology, and develops their managerial skills.

Hafner’s classroom training program was aimed at its employees. Instructors and trainees used printed manuals to develop their knowledge of processes and products specific to the company. Hafner had made periodic refinements as a result of measuring and documenting the effectiveness of its training program over time. Because Hafner’s training program had a proven track record and had been kept current, it provided an ideal starting point for the THRC’s “*Textile Training Through Technology*” training series. The first part of this training series is *Textile Manufacturing Basics*, which is the focus of the following section.

### **TEXTILE MANUFACTURING BASICS**

The result of the THRC’s collaboration with Hafner was the development of *Textile Manufacturing Basics*, a fully bilingual, computer-based training program on CD-ROM, with a 200-page guide. It was adapted from Hafner’s introductory training program, with input from more than 30 textile industry companies, labour representatives, and educational institutions. The program is organized into three main sections, composed of the following modules: *The Manufacturing of Yarn* (five modules); *The Weaving Process and Dyeing and Finishing of Woven Fabrics* (seven modules); and *The Knitting Process and Dyeing and Finishing of Knitted Fabrics* (seven modules). Collectively, these three sets of modules cover over 90 per cent of the processes encountered in textile manufacturing.

### **OBJECTIVES**

- To enhance employees’ understanding of the whole textile manufacturing process, so that they are aware of what Hafner does
- To standardize training for workers, creating the same frame of reference for employees
- To increase employee skill levels

- To increase the potential pool of new employees already familiar with the textile manufacturing process by sharing the information with schools and competitors

#### Results of the 2001 Textiles Human Resources Council Survey

In March 2001, THRC interviewed representatives of labour and management from small, medium, and large textile companies in Québec, Ontario, and Atlantic Canada, in order to re-examine the training and learning requirements of the industry. The survey underlined many of the themes highlighted in the 1996 needs assessment. It also confirmed that *Textile Manufacturing Basics* was a step in the right direction.

While the industry intends to give more technical training to help employees meet changing needs, interviewees emphasized that essential skills training increases the ability of trainees to absorb that technical training. They also underlined the continuing need for managerial skills development, as well as more widespread adoption of an underlying learning and training culture among textile firms.

The 2001 survey also identified the following training and learning requirements:

- Health and safety awareness across all employment groups
- Computer and language literacy
- Communication skills for managers and supervisors
- Change management skills
- Textile industry specific management skills
- Cross-training in multiple technical skill sets to enhance employee flexibility

Clearly, improvement in all of these skill areas depends on managers and employees being well grounded in the processes they encounter in textile manufacturing.

#### TARGET GROUPS

- All Hafner employees, including shop floor workers, new employees, and office personnel
- Textile industry employees
- Textile educational institutions and their students
- Suppliers and others who require knowledge of the textile industry

#### ACTIVITIES

*Textile Manufacturing Basics* has been implemented throughout the workplace at Hafner, since it was launched in November 2000. Hafner takes a blended approach to workplace training. While the company delivers *Textile Manufacturing Basics* via computer, it has also trained in-house peer coaches and mentors

to guide employee-learners in the use of computer-based training, to help them get started, and to answer their questions.

Peer coaches and mentors encourage employees to participate in a 30 to 40 minute training session, using the CD-ROM, and then follow-up in a group setting to clarify key terms and concepts, using the printed User Guide. The peer coaches also demonstrate technology or processes in the plant that relate to the concepts employee-learners encounter during their computer-based training sessions and they discuss how training material relates to individual employees' jobs. Finally, peer coaches and mentors encourage employees to use self-check questions and evaluation modules in the CD-ROM to assess their own comprehension. They are also able to assure employees that the results of these assessments are for their own use only and are not recorded anywhere by the company.

#### RESOURCE REQUIREMENTS

##### From the employer:

- Four to five years of course content
- Paying employees during training
- Providing people with multimedia training so they can create the CDs
- Equipment purchases (digital photo camera, video, projectors, etc.)
- Replacing the employee at his/her work station, while he/she is in training
- Basic computer training (Windows) for employees who need it
- Providing a room with computers that are accessible at all times

##### From government sources:

- Modest contribution from HRDC

#### INNOVATION

In association with the THRC, Hafner has developed a training program with broad appeal throughout the textile industry. *Textile Manufacturing Basics* is used not only in textile manufacturing workplaces, but also by suppliers to the industry, users of textiles (including apparel manufacturers), and other organizations that work closely with the textiles industry (including educational institutions and government

departments). The real innovation of the Hafner/THRC collaboration lies in the way these partners have leveraged their strengths to fill a gap in the industry and generate revenue to develop future computer-based training, which will address the sector's emerging training challenges.

In particular, the THRC leveraged its technical capacity and core competency in consulting broadly with textile industry members to determine their needs and create a product that would be of immediate use. Hafner leveraged its expertise, by providing up-to-date workplace training to furnish the sector council with credible training content. Revenue from the sale of *Textile Manufacturing Basics* will be used to finance new computer-based training programs for the industry.

Training has helped to raise the skill levels for Hafner's employees. It has increased productivity and product quality, as well as improved the employability skills of Hafner's workforce. Transforming a classroom curriculum into a bilingual CD-ROM has resulted in the program being adopted across Canada and worldwide.

## BARRIERS

### For the Employer:

- the costs of purchasing computers equipped with CD-ROM drives and of customizing training programs;
- the cost and inconvenience of replacing employees, while they participate in computer-based training in the workplace;
- providing a space and staff who are available at all times; and
- providing training for deaf employees.

### For Employee-learners:

- getting comfortable and familiar with e-learning techniques and acquiring computer skills;
- gaining the courage to ask for advice on-the-job from peer coaches;
- ensuring that employees use the independence of self-directed computer study to cover all the course materials;
- finding time within shift work and tight production schedules to fit in training;

- helping employee-learners to develop good study habits; and
- relating course materials to on-the-job situations.

### Barriers for Peer Coaches/Mentors:

- making time for mentoring, within job requirements;
- developing the communication and teaching skills to make employees feel comfortable in asking questions; and
- having the up-to-date knowledge to respond spontaneously to employee needs.

## SOLUTIONS/KEYS TO SUCCESS

### Taking a Blended Approach to Training:

- integrating computer-based delivery with opportunities for hands-on group support;
- allowing employee-learners to discuss training content with in-house peer coaches and mentors;
- supporting the development of self-directed learning skills;
- training in-house peer coaches and mentors in the use of *Textile Manufacturing Basics*; and
- using hands-on peer coaching on the job to convey learning, with minimum disruption to the employees' work schedules.

### Keys to Employee-learner Success:

- making training user-friendly, by taking a reality-based approach;
- being able and willing to apply knowledge on the shop floor;
- interacting effectively with the peer coach; and
- supervisors giving employees the time and encouragement to finish parts of training, as time permitted.

### Making Peer Coaches Part of the Training

#### Process, by:

- encouraging employee-learners to attend a half-hour training session, to take a look at the user guide, to make sure they know how to use the CD-ROM, and to encourage them to ask questions before they get started and when they run into problems;
- checking in with each employee-learner regularly, to see how they are doing, review sections, demonstrate technology on the shop floor (to reinforce training), and talk about their progress;
- putting general information offered in the training program into Hafner's context;

- encouraging trainees to use self-check exercises to determine how much information they have retained; and
- finding time to sit down and talk with employee-learners about how valuable their training has been, which sections they would like to review together, and which processes or machinery they would like to see demonstrated first-hand.

#### **Customization:**

- developing a basic core curriculum that can be used throughout the industry;
- providing more in-depth coverage of material that employee-learners can explore when they have mastered the basic concepts; and
- adjusting training material to fit products or processes specific to an individual company.

#### **Conducting an Extensive Industry Review:**

- from the point of view of small- and medium-sized enterprises, having access to the coordination and leadership offered by sector councils and professional associations, to define and aggregate training content;
- consulting and communicating messages, and developing and distributing industry training programs;
- engaging a broad cross-section of the industry in the review of generic training, to ensure that courses and materials are widely applicable; in this case, 30 THRC members, including labour and management stakeholders in these firms, as well as educational partners and multimedia partners, beta-tested Textile Training Through Technology programs; and
- actively engaging other firms, prior to rolling out training, to ensure total industry buy-in and ownership.

#### **Taking Prior Learning Assessment and Accreditation into Account:**

- assessing employees' prior learning, in order to ensure that they have the standing to obtain credit for their training from a post-secondary institution; and
- getting *Textile Manufacturing Basics* on the curricula of CEGEPs in Quebec, and textile teaching institutions in the United States and Europe.

#### **Managing Training at the Company Level:**

- supporting computer-based training, from the CEO level down;
- tracking employee learning;
- providing additional support, where necessary; and
- recognizing training results in employees' work records.

## **OUTCOMES**

- Hafner's collaboration with the THRC was recognized by the Office of Learning Technologies in 1999. This partnership was deemed to be one of 10 best practice case studies in which the successful use of "learnware" was introduced, to further the appropriate and effective use of technology-based training in the workplace.
- *Textile Manufacturing Basics*, which was launched in November 2000, is the first fully bilingual, computer-based, textile training program in the world. It has been adopted across Canada and worldwide; the training program is currently being used in hundreds of Canadian workplaces and in 28 countries in North and South America, Europe, and Asia. International users of *Textile Manufacturing Basics* include DuPont, JC Penny, Sears, and Perry Ellis.
- Hafner employees complete their required training in half the time they used to, and, due to the transportable delivery method, have the flexibility to take their training anytime and anywhere (eg., slow production periods, "off shifts," and temporary line shutdowns).
- Hafner employees retain learning longer when they take advantage of computer-based training.
- Users of *Textile Manufacturing Basics* include not only textile manufacturing workplaces, but also suppliers to the industry, users of textiles (eg., apparel manufacturers), and other organizations who work closely with the textiles industry, including government departments and educational institutions, such as the CEGEP in Saint-Hyacinthe and the University of Montreal (Industrial Engineering).

## **IMPACTS AND BENEFITS**

#### **Employer Impacts and Benefits**

- being seen as the developer of key industry training by customers and suppliers reinforces Hafner's reputation as an expert in the field;
- quicker integration of new employees into the workplace;
- enhanced awareness and knowledge of the manufacturing process provides employees with the confidence to better market Hafner products;
- increased employee ownership in the company, resulting in better employee retention;

- an enhanced teaching environment motivates learning for Hafner employees;
- improved training and more detailed company knowledge increases productivity and product quality;
- enhanced quality of training, as well as training content available in multiple languages (to reach more employees);
- enhanced capacity to provide training at different levels of complexity; employee-learners can “drill down” for more detail, once they have mastered the basic offering;
- enhanced ability to fit training into the operations schedule;
- enhanced overall training capacity, with digitally-archived basic training, to which any number of employee-learners can gain access at any time; and
- improved delivery methods which has made training even one person at a time economically feasible.

#### **Employees Impacts and Benefits**

- self-directed learning empowers employees to take ownership of their skill development needs;
- enhanced literacy and communication skills, better developed employability skills;
- increased understanding of the total manufacturing process, and of their role in that process;
- ability to learn at their own pace, and review material when, and as often as, they need to, which ensures that all employees get the same value from the program, regardless of their initial level of skill and knowledge;
- the opportunity to advance step-by-step, from simple to more advanced levels;
- ability to build confidence through a self-directed learning approach; and
- portable industry skills credentials.

#### **USE AS A MODEL**

*Textile Manufacturing Basics* and the process used by the Textile Human Resources Council in collaboration with Hafner and dozens of other industry partners may be replicated in other sectors, where companies are interested in providing a comprehensive industry overview to new recruits.

#### **Next Steps: Building on *Textile Manufacturing Basics***

Hafner and its THRC partners like *Textile Manufacturing Basics* because of the way it helps employees develop their literacy and communications skills, along with their technical skills in increasingly complex subjects. Both Hafner and its THRC partners view *Textile Manufacturing Basics* as the first in a multi-step training and education plan to address the technical, essential, supervisory/managerial skill needs of employees at all levels, throughout the textile industry.

Hafner would like to help its employees further expand their technical skills using computer-delivered training. More specifically, Hafner would like to work with other textile firms to produce additional on-line learning materials, which would provide textile industry employees with opportunities to mix and match training and education modules to suit their individual skills development needs and goals.

#### **Our thanks to the people we interviewed, and others who provided comment, including:**

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### About the Education and Learning Case Studies

The Education and Learning case studies examine outstanding education and learning programs and initiatives. The case studies provide in-depth analysis of the methods used to develop, assess, implement, and deliver education and lifelong learning in schools, colleges, universities, workplaces, and communities. They focus on goals, activities, resource requirements, achievements and outcomes, benefits, innovations, and keys to success and challenges.

This case study addresses e-learning and highlights one of the award winners from the National Awards for Learning Technologies in the Workplace, funded by the Office of Learning Technologies, Human Resources Development Canada.

Learning Technologies in the Workplace Award Winner 2002: Hafner Inc.

by *Kurtis Kitagawa*

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