The value of training*

*and the high cost of doing nothing

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Introduction

In today's competitive global business climate, companies looking to improve their gross margins and increase productivity are increasingly looking for ways to boost employee performance and effectiveness. Skills development and training programs, often a target of budget cuts, may help organizations achieve these corporate objectives and enhance their overall corporate culture.

While, intuitively, many CEOs and managers understand the value of a skilled workforce, many companies fail to realize the benefits that minimal improvements in employee skills can make in an organization. Further, they lack an understanding of the business areas which are directly impacted by employee skills and knowledge, including:

- Increased productivity and performance improvement
- Reduced server loads and bandwidth costs
- Stricter adherence to corporate policies
- Improved customer satisfaction
- Increased employee morale and retention
- Increased revenue

Worse, many corporate leaders underestimate the high cost of *not* training. This paper will provide organizations with an understanding of the costs (and cost areas) a poorly implemented skills development program imposes on an organization as well as the benefits training and skills development can provide. IBM has created recommendations to develop a skills development program using cost effective methods for each employee category in your organization.

"There is no saturation point in education."
– IBM Founder Thomas J. Watson, Sr.

A company will lose 10 to 30% of its capabilities per year. By Year Three, an organization has retained only 41% of it original capabilities, dwindling to 24% by Year Six. [5]

The high cost of doing nothing

"Untrained or poorly trained users will cost significantly more to support than well-trained workers. Untrained traveling workers who spend a significant portion of their time away from the office, and who often have networking questions from multiple remote locations, are generally more expensive to support, regardless of the types of devices they're using."[1] Cost categories may include:

- Increased down time
- Co-worker distraction
- Rework
- IT/help desk support

Training also affects employee retention. According to the American Society for Training & Development, 41% of employees at companies with inadequate training programs plan to leave within a year versus 12% of employees at companies who provide excellent training and professional development programs.[2]

The cost of replacing skilled employees ranges from US $75,000 to $450,000.[3] The average cost to recruit a professional candidate is $18,374.[4]

IDC estimates a company will lose 10 to 30% of its capabilities per year. By Year Three, an organization has retained only 41% of it original capabilities, dwindling to 24% by Year Six, due mostly to employee movement, process changes, technology changes and the dearth of knowledge new hires bring to the organization.[5]

Value of training and skills development programs

According to IDC, the three categories where training can provide a measurable return on investment are *revenue generation, productivity/performance improvement and cost-reduction*.

Revenue generation

More than 60% of IT managers believe that the skill of their teams is the most important success criterion for critical IT functions. (See Figure 1).[6] Companies in the top quarter in training expenditure per employee per year ($1,500 or more) average 24% higher profit margins than companies that spend less per year, according to *HR Magazine*.[7]

Figure 1: Key success factors for critical IT functions (n = 224)
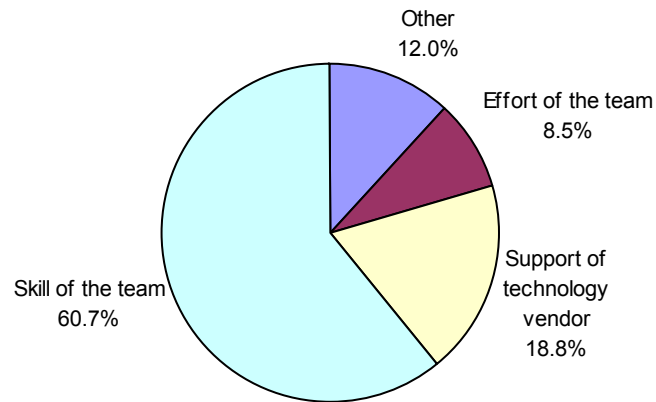
Source: IDC, Worldwide IT Education and Training 2008 Vendor Analysis: IDC's MarketScape Model, Doc # 209799, December 2007 [8]

Productivity/performance improvement

Knowledge and skills development are vital to the health of an organization. According to a Merrill Lynch study, Motorola estimated that every dollar spent on training yielded US $30 in productivity gains within three years.[9]

A company with 1,000 employees can save at least $240,000 per year as a result of an average productivity gain of just three minutes per day.

Cost reduction

An IBM training assessment and implementation at an energy company with 1,000 employees found that companies can save significantly on labor costs with minimal investments in employee skills development. The study concluded that training which produced an average productivity improvement of only three minutes per day would save the company at least US $240,000 per year.

Assumptions:

- Annual average employee salary was US $40,000, or US $20/hr
- 1,000 workers saved three (3) minutes per day, or one hour per month
- Calculation: US $20/month x 1,000 employees = US $240,000

Collateral saving

Companies that employ training programs which maximize the benefits of the product may see unintended savings. At a large healthcare company, IBM's Software Services consultants were able to reduce server loads and bandwidth requirements by teaching employees new e-mail policies. By archiving local mail and storing large documents in shared databases, the company's employees utilized local workstation storage instead of shared servers and data lines.

Recommended components of IT training

A successful corporate skills development program includes components for *essential learning, future learning and corporate mandates*.

Essential learning

Employees should be provided with training opportunities to develop the minimum skills required to perform their tasks. Training may include new hardware or software training or update training for new releases. Any product training should also include corporate usage policy training, including business rules or security modules, compliance and product maintenance (including backup and archiving policies).

Future learning

Often overlooked, future learning is an essential component of a successful training program. Organizations should provide clear paths to continuing education to help end users quickly get answers to their problems. Online training, embedded learning and reference cards can help reduce help desk volumes and operational costs.

Corporate mandates

Without executive mandate, many training programs fail or begin to wane shortly after implementation. To ensure success of any skills development program, organizations should incorporate training as an employee requirement. Depending on the complexity or criticality of a new application or process, some organizations require training as a condition of employment. Others use training as an incentive to ensure compliance. "Best practices to ensure class attendance include:
• Not letting anyone use the new application until he or she has been trained
• Charging higher per-seat support charges for untrained users
• Having HR play a role in maintaining employee training records and building training credits into career planning
• Giving managers rebates from IT for end users who successfully complete follow-up training (if in-house chargeback mechanisms permit this)"[10]

## Determining the best training methods for your organization

To maximize returns on investments, organizations should develop a training program which matches corporate needs and types of students with available training modalities. In addition to traditional classroom training, alternative modalities can provide effective skills development for an organization, particularly if the student type is effectively matched to the training method (See Table 1). Blended learning, combining traditional instructor-led training with self-paced learning, may provide a cost-effective way to develop skills that match or exceed instructor-only training.

Public classroom training

According to IDC, classroom training will continue to dominate training delivery methods until 2012 (See Figure 2).[11] Public classroom training is ideal for complex applications, such as systems administrator and developer training. Classroom training provides a high level of parallel communication and feedback with the instructor. Hands-on labs can provide real-world scenario exercises which mirror on-the-job tasks. Public classroom training is also suited for new users who have not developed a basic understanding of the product or the software metaphors used in the application.

Classroom training typically teaches to the student with the lowest skill set, and training is typically generic and "out-of the box." Training for company-specific policies or modifications must supplement the basic training provided in a class. Classroom training is less convenient than some other modalities as it is dependent upon location availability and class scheduling. Classroom training is typically the most expensive method for training. In addition to tuition, travel and living costs add significantly to the base expense.

Figure 2: Worldwide IT Education Services Revenue Share by Delivery Modality, 2012
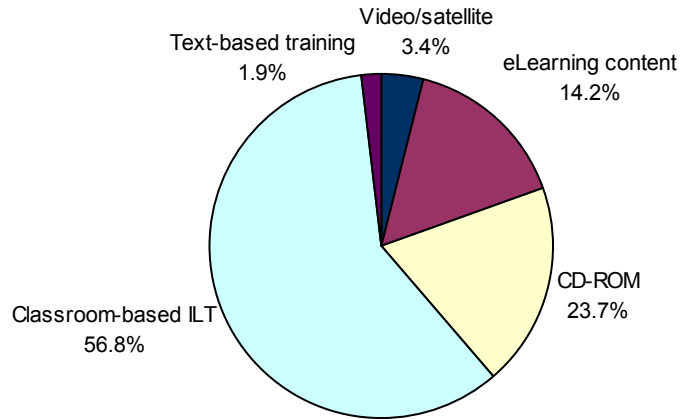
Source: IDC, Worldwide and U.S. IT Education and Training 2008–2012 Forecast - Growth Though Situation Tenuous, Doc # 211332, March 2008[12]

Onsite training

For groups of six or more, customized onsite training is typically more cost effective than public classroom delivery. Instruction will focus on corporate-specific priorities and topics, reducing the time devoted to generic product topics. Travel and living expenses, including employee downtime can be eliminated or reduced, particularly if employees are onsite.

Whether onsite or at a public classroom facility, the costs of traditional classroom education are significant. In a study conducted by *Training Magazine*, the indirect costs (mostly travel) totaled twice the direct costs for the actual training.[13]

Conferences

Conferences provide a training method that allows students to quickly develop skills on a number of topics. Unlike traditional training, conferences provide tracks for multiple job roles or skill set levels. Systems administrators and application developers are usually well-served in this format which can quickly give them a comprehensive understanding of a product. Most conferences also provide "deep dive" sessions which allow attendees to develop essential skills

and communicate directly with industry and/or product experts, including product development teams.

Conferences also provide attendees with insight into key business issues and emerging technologies. Vendor fairs and solutions/exhibitor halls can help attendees improve their knowledge about new and emerging products in the industry. The conference format also provides a setting for attendees to interact directly with product teams, vendors and peer customer experts.

Depending on the scheduled time and location, conference costs may be significant. Although tuition is typically less expensive than comparable classroom training, travel and living costs may double the cost of the actual conference.

Technical seminars

Typically one or two days in length, technical seminars usually focus on a single technology or a group of related technologies. Like conferences, this format can enable systems administrators and application developers to develop product skills in a short period of time.

Technical seminars provide attendees with benefits similar to conferences but with less flexibility because of focused content. Because of their short duration, technical seminars must aggregate customers with similar skill sets; seminar planners typically develop separate events for beginners, intermediate and advanced users. Tuition and travel/living costs may mirror instructor-led public classroom training.

Instructor-led online training

Instructor-led online (ILO) training provides many of the same benefits of public classroom training. Using remote access technologies, students conduct parallel communication with an instructor. Training is interactive and may include virtual hands-on lab exercises, similar to traditional training. Depending on time zone limitations, ILO training allows students in a geographically disbursed organization to attend training at the same time. ILO training also allows a training company to increase class size by aggregating students from disparate locations. ILO training may be suitable for systems administrator and

developer training on complex applications, depending on bandwidth capabilities. ILO training may also be suited for new users, provided they have basic computer literacy to operate and access remote classroom technology.

ILO training is less personal than live training and the format requires an instructor who can multi-task between teaching and remote classroom management. Student interaction is limited as is teacher-student communication.

Mentoring

Mentors provide one-on-one training, typically onsite in an organization. This format is ideal when the skill gap to be bridged is substantial. The format also provides a transition for students moving from the classroom to real-world applications. After a product deployment and structured product training, mentors (sometimes called "floor monitors" or "floor walkers") provide much-needed remedial training for end users and help desk teams. Mentoring helps reduce downtime, improves employee morale and reduces help desk costs. Costs typically mirror consulting expenses.

Mentoring is often overlooked as a component of product training and is subsequently omitted from the training budget. Remote or offsite students cannot benefit from onsite mentoring.

E-learning modules

E-learning allows students to learn independently and repeat exercises to reinforce or refresh their understanding of the content. Available 24x7 at the learner's convenience, self-paced e-learning provides an alternative to classroom teaching for students who are geographically scattered or too busy to participate in a classroom session. The content in e-learning may mirror classroom courses.

E-learning is a good format to provide upgrade and general instruction for most basic applications. The format is suited for onsite and remote users with basic computer literacy who also have the discipline to complete the training without interruption. Usually less expensive than instructor-led training, costs for customized e-learning content can be significant.

Embedded learning

Embedded learning helps users learn through training modules built into the product or equipment. Embedded learning is typically used to enhance and/or maintain the skills of the product user, rarely for essential learning. Formats may include help files and Just-In-Time Training (JITT) modules, and can be tailored based on the role or skill set of the product user. Embedded learning can shorten the learning time, reduce help desk calls and provide users with remedial training.

Most embedded learning solutions are customized to fit an organization's requirements. Development costs may be significant and may not be justified in small organizations with limited economies of scale.

Reference cards

Reference cards provide instant access to essential learning. Off-the-shelf products typically focus on less complex applications for non-technical audiences. Frequently-asked questions (FAQs) also serve as quick reference material. Reference cards can reduce help desk costs and provide students with solutions for common tasks. This format is an ideal supplement to structured training as it can provide remedial training and continuing education.

Reference cards may be distributed in multiple formats; with each format having its advantages and disadvantages. Paper cards can be taped to a wall or cabinet, making them easy to access, but users may lose paper-based cards in their mix of daily work. Paper reference cards may be also expensive to print and ship. Reference cards delivered through e-mail may be deleted or misfiled, and web-based cards are typically more difficult to access than other forms of online help or phone-based support.

Table 1. Student group matched to appropriate training methods

Mode	End users	Remote workers	Systems Architects	App/Dev team	Technical Support	Business owners	Administrative assistants
Classroom	●		●	●		●	●
Onsite training	●		●	●	●	●	●
Mentoring			●		●		●
Conferences	●	●	●	●	●	●	
Technical seminars			●	●			
Instructor-led online		●					
E-learning modules	●	●					
Reference cards	●	●			●	●	●
Embedded learning	●	●			●	●	●

Source: IBM Training learning recommendations

Integration with the Help Desk

Help desk training can provide a significant return on investment for an organizations' training expenditures.
Key benefits include:

- Faster adoption of technology
- Reduced call lengths, which lead to reduced end user downtime
- Improved organizational morale
- Sponsorship and support of new technology

A well-trained help desk staff will advocate new technology. Conversely, poorly trained teams may question the value and benefits of new technology and communicate negative comments to callers, potentially damaging the success of a product deployment. Help desk teams should also be utilized to improve and modify training programs. By collecting "top ten" issues from the help desk, the training organization can incorporate solutions into the skills development program to mitigate future support issues.

Summary and recommendations

To fully capture the value training can provide, organizations should develop a training plan that matches user preferences to training modalities and training needs. The training plan should include an instrument to measure the return on investment in categories such as productivity gains, reduced equipment usage, reduced product failure, less-frequent help desk calls, improved customer service, compliance, increased employee morale/retention and revenue gains. Help desk teams must be well trained to ensure advocacy, and they should be solicited to generate "top ten" help desk issues for future end user training. Executive mandate may be required to ensure a successful training deployment.

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For more information

To learn more about how training and skills development can help you generate revenue, improve productivity and save costs, please visit http://www.ibm.com/software/lotus/training.

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Endnotes

1 Gartner, Inc., "Toolkit Best Practices: Training End Users," November 30, 2007

2 American Society for Training & Development, 2003

3 *eLearning* Magazine, Jan, 2001

4 Training and Development, May, 2001

5 IDC, The Silent Killer: Knowledge Leakage and the Impact on Technical Skills, Doc # 201267, April 2006

6 IDC, Worldwide IT Education and Training 2008 Vendor Analysis :IDC's MarketScape Model, (Cushing Anderson, Susan Lee)(IDC Doc # 209799, December 2007

7 Susan J. Wells, HR Magazine, 4/19/2001

8 IDC, Worldwide IT Education and Training 2008 Vendor Analysis :IDC's MarketScape Model, Doc # 209799, December 2007

9 Merrill Lynch , "The Book of Knowledge (2000).

10 Gartner, Inc., "Toolkit Best Practices: Training End Users," November 30, 2007

11 IDC Worldwide and U.S. IT Education and Training 2008–2012 Forecast - Growth Though Situation Tenuous, Doc # 211332, March 2008

12 IDC, Worldwide and U.S. IT Education and Training 2008–2012 Forecast - Growth Though Situation Tenuous, Doc # 211332, March 2008

13 Training Magazine, 36 (10) (Oct. 1999), 26.