DEVELOPING JOB-LEARNING SKILLS

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Introduction

The ability to learn a new job in a fast, cost-efficient manner may be the most neglected job skill in any workforce development strategy. There have been countless surveys taken of critical job-skill shortages, but none of these has focused on the underlying process of acquiring job knowledge, skills, and abilities.

Ignoring job learning as a necessary skill makes the fatal assumption that once a person has a technical skill, that skill will be applicable for a lifetime. We know this assumption isn’t true. People change jobs often, and technology becomes obsolete. People do acquire new skills, however they often have no organized process for acquiring these new job skills. The result is a skill acquisition process that is time consuming and costly.

In this paper, we propose a curriculum for developing job-learning skills. This curriculum should be integrated into any technical skills educational program. Failure to teach job-learning skills will result in workforce development that fails to prepare individuals for a future career.

The Business Case for Developing Job-Learning Skills

There is general agreement that few lifetime jobs exist. Some of the forces affecting job stability are shown in exhibit A. At best we can prepare an individual with the skills required for a 2-3 year job. After a short time period, new job skills will have to be acquired with respect to

- technology
- product characteristics
- customer requirements
- business needs (e.g., cost, quality, delivery)
- job content

The process of developing a new employee can be very costly. Our research(1) has shown that employers are often unaware of the magnitude of these break-in costs. The greatest break-in cost is the lost value that would have been obtained by a fully skilled employee. In fact, break-in costs are one of the highest and most controllable costs associated with direct labor in virtually any business.

Break-in costs would not be a problem if agility were not such a business need today. As the pace of business has increased, jobs are changing at an every-growing rate.
EXHIBIT A
REASONS FOR JOB INSTABILITY

- Mergers and acquisitions
- International economic forces
- Corporate restructuring
- New products and services
- Changing competitive forces
- Technology
Healthy economic conditions have also impacted employee tenure with a specific company. As employee turnover increases, there are increasing numbers of new employees to be trained.

Let’s look at how new employees acquire the job knowledge, skills, and abilities that they need. The most common approach for learning a job can best be described as a do-as-I-do total immersion process. The employee is asked to observe an experienced employee and acquire the knowledge, skills, and abilities through an unstructured immersion in the job. In very little time, the employee is required to perform the job. An employee who has limited job-learning skills will have great difficulty in mastering the job.

Job-learning skills are not just important for someone learning a new job. They are also critical for mastering a job. In one company we worked with, we found the costs of inadequate skills to equal about 10% of the payroll.\(^{(2)}\)

In many cases, employees max out their job skills at a level that is lower than what is desired to gain full value from the employee’s time. One reason for this is that employees don’t know how to advance their skills. They lack the job-learning skill associated with job improvement.

Taken together, break-in training costs and skill-deficiency costs offer a major opportunity for cost savings. Investments in teaching job-learning skills are easily justified.

Why are job-learning skills rarely, if ever taught? One answer to this question is that educators view their job as teaching a specific technical skill rather than the process for learning a skill. Another reason might be that we don’t know how to teach job-learning skills. These skills are not skills that are easily recognized or taught. Finally, our educational institutions have tended to compartmentalize learning. There is no ownership for a general skill such as job learning.

**Key Components of Job-Learning Skills**

In order to overcome the inherent problems of teaching job-learning skills, we need to understand what these skills are. Once we understand the skills, we can begin to think about teaching them.

Exhibit B contains a list of the key learning components that are present in almost any job. While some jobs may require more of some skills and less of others, most jobs have most of these components.

Let’s use the job of a coder in a health care billing office as an example to illustrate these components. The coder’s job is essentially one of classifying medical treatments for billing purposes.
EXHIBIT B
KEY COMPONENTS OF JOBS

- Reference knowledge—Information that needs to be recalled or located (e.g., equipment terminology, operational practices).
- Customer awareness—Understanding what the customer (both internal and external) needs from your work product.
- Process model—Being aware of the key parameters of the process and how these parameters affect your job.
- Product knowledge—Understanding distinguishing characteristics of different products and how these affect your job.
- Systems knowledge—Being able to see the big picture of your work site and how you fit in.
- Job tasks—Understanding the specific job assignment.
- Judgment guidelines—Understanding when and how to use judgment.
- Communications practices—Knowing what, when, and who to communicate key information to.
- Physical skills—Ability to perform the body-kinesthetic requirements of the job.
- Technical knowledge—Special knowledge associated with a specific discipline.
- Improvement abilities—The development of ways to perform the job better.
Reference knowledge concerns the myriad of medical terms and billing practices. Some of this information must be recalled in order to perform the job efficiently while other information must be quickly identified from reference materials.

Customer awareness for the coder consists of the organization’s billing office that converts the codes into a medical bill. Customer awareness also includes knowledge of what third-party payers need to process a payment.

Process model knowledge includes awareness of the nuances of third-party payment practices and how payments can be increased with billing practices.

Product knowledge for the coder would include awareness of different third-party payers’ systems and practices. It would also include knowledge of the health care institution’s conventions for reporting treatment.

Systems knowledge would include an understanding of the overall treatment/billing/payment system. Included in this knowledge would be awareness of how coding mistakes can create delays in payments.

Job tasks would include knowledge of the specific coding tasks as well as the ability to use computer systems.

Judgment guidelines refer to how to treat unusual treatments for coding purposes. Judgment might also be used when records appear to contain errors that could lead to incorrect coding.

Communications practices can be routine/non-routine. The essential communication skills are knowing what others need to know and being able to communicate this information.

Physical skills in the coder’s job can involve keyboarding skills.

Technical knowledge for the coder would include medical terminology, medical reporting practices, and billing principles.

Improvement abilities incorporate the insight, creativity, and courage to suggest better ways to perform a job. This is the ability that leads to mastering a job.
Learning a Specific Job

Along with the development of the critical skills for learning a new job, there is an additional need of a strategy for acquiring specific job skills. This strategy involves such critical questions as

- What do I need to know?
- What’s the best sequence for learning what I need to know?
- What is best learned through hands-on experience?
- At what point am I ready to go solo?
- How do I advance my knowledge, skills, and abilities?

Ideally, many of these questions would be answered for the trainee by the trainer. Unfortunately, few trainers are sufficiently skilled at guiding the job-learning process. Therefore, the individual is often left with the task of developing his/her own learning strategy.

There is very little known about the best way(s) to actually learn a job. What we do know is that individuals have different learning styles and that the strategy for learning a job should match a person’s learning style. Gardner’s work is perhaps the most helpful in understanding learning styles. Three learning styles in particular are useful.

- Bodily-Kinesthetic: Hands-on learning
- Analytical: Learned from detailed instructions
- Visual: Learning from watching

We need to help our employees understand the style that works best for them and then help them structure a job-learning process that fits their needs. More will be said about how to do this in a later section of this paper.

A Curriculum for Learning Job Skills

The critical skills for learning a job are outlined in exhibit C. What is striking about the critical skills list is how few of them are formally taught in either vocational education or in corporate training programs.

One might argue that many of the critical skills for job learning are not teachable. In reality all of the critical skills can be taught, but the process for teaching these skills is often quite different from traditional training.

Exhibit D contains a schematic of a job skill development process. The process begins with an assessment of abilities in the critical skill areas. There must also be a recognition of need for there to be an improvement. This gets at the issue of possessing the will to learn.
# Exhibit C
## Linking Key Job Components with Critical Skills

<table>
<thead>
<tr>
<th>Critical Skills</th>
<th>Reference knowledge</th>
<th>Customer awareness</th>
<th>Process model</th>
<th>Product knowledge</th>
<th>Systems knowledge</th>
<th>Job tasks</th>
<th>Judgment guidelines</th>
<th>Communications practices</th>
<th>Physical skills</th>
<th>Technical knowledge</th>
<th>Improvement abilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recall of critical information</td>
<td>Listening</td>
<td>Cause and effect analysis</td>
<td>Recall</td>
<td>Visualization</td>
<td>Recall</td>
<td>Pattern recognition</td>
<td>Recognizing needs</td>
<td>Manual dexterity</td>
<td>Discipline specific skills</td>
<td>Observation skills</td>
</tr>
<tr>
<td></td>
<td>Information search strategies</td>
<td>Observing</td>
<td>Observing</td>
<td>Observing</td>
<td>Big picture thinking</td>
<td>Recognition</td>
<td>Cause and effect analysis</td>
<td>Presenting information (written/oral)</td>
<td>Developing a physical regimen</td>
<td></td>
<td>Creative thinking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connecting job tasks with customer needs</td>
<td>Linking job tasks with product needs</td>
<td>Connecting job tasks with product needs</td>
<td>Linking new situations with past ones</td>
<td>Following instructions</td>
<td>Linking new situations with past ones</td>
<td></td>
<td>Physical sensitivity</td>
<td></td>
<td>Experimentation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning from experience</td>
<td></td>
<td>Information processing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acting without thinking</td>
<td></td>
<td>Selling ideas</td>
</tr>
</tbody>
</table>


**EXHIBIT D**

**JOB SKILL DEVELOPMENT PROCESS**

- Clinical Experience
  - Varied
  - Focused on specific critical skills
  - Progressive

- Critical Skill
  - Assessment
  - Recognition of need

- Development of Personal Repertoire
  - Building a personal reference source
  - Developing memory anchors

- Debriefing
  - By mentor
  - Self-revelation

- Generalization
  - What can we conclude?
  - What can we transfer?
The important aspect of the critical skill development process is a series of clinical experiences. These experiences will be varied in design (length, topic, and focus) and often will be unrelated to a specific job, or they will be identifiable. The focus will be critical skills from those shown in exhibit C. The experiences will be progressive. As the training advances, multiple critical skills will be incorporated into the clinical experience. In this approach, some skills will be developed while others will be reinforced in each clinical experience.

The clinical experience will be followed by a debriefing by an experienced mentor. The job of the mentor will be to help the individual understand what happened in the clinical experience. The end result of the debriefing will be an understanding of what job-learning skills were developed and how these skills can be transferred to other situations.

The final phase of the job-learning process is the development of a job-learning repertoire that can be accessed when new situations are encountered. One key to the accessing of the repertoire is the development of memory anchors that can be used to ease recall of past experiences.

The job-learning process outlined above applies to both the critical job skill components as well as the development of the best strategy for acquiring the ability to perform a specific job. There is less guidance that can be given to acquiring specific job knowledge, but the repetition of clinical experiences can help the individual learn what is best for him or her.

**Implications for Workforce Development**

The schematic outlined in exhibit D is one that has both academic and on-the-job applications. In an academic setting, we must focus on development of the critical skills in addition to technical skills. Ideally, many of the technical skill’s courses could also serve as clinical experiences. In this way, a student could acquire technical skills and job-learning skills simultaneously.

What is especially critical from an academic perspective is that students understand what is important in learning a job and that they are conscious of how they are developing these skills. Without such an awareness, students will go through experiences without truly learning what is most important for a job.

At the work site, the clinical experiences are real job experiences, but the same learning process applies. Employees, however, rarely receive the mentoring they need to really understand how they learn. Trainers are not skilled at performing the debriefing, and there is no emphasis on real job learning other than the specific job. As a result, employees rarely advance their job-learning skills.
We need to upgrade the skills of the job trainers. It is ironic to think that job training, which is one of the most critical assignments in any business, is so casually performed. With even a modest investment in job-training skills, bottom-line performance could see significant improvement.

Authors

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REFERENCES

