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Automation and job satisfaction among reference librarians

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How automation can be used to maximize job performance

Lynch and Verdin (1987) noted that librarians are interested in job satisfaction because of the generally held assumption that a high level of job satisfaction will lead to a high level of job performance.

But is this true? Research findings are mixed. In studies of business organizations, the most common pattern is a low but consistent association between satisfaction and performance.

There are several possible explanations for this positive but low association. It may be that contented employees give good but not necessarily superior performances.

On the other hand, how do we know that employee satisfaction really leads to better performance? Perhaps good performance leads to satisfied employees.

Studies of Reference Librarians In the reference field, we have two contradictory studies. My study of five academic libraries found no relationship between reference librarian performance effectiveness and the job satisfaction of individual librarians. However, Ralph Lowenthal's study of seven public library departments found high correlations between reference librarian performance effectiveness and satisfaction scales.

These two studies were very different in their focus. Lowenthal looked at departmental level performance and satisfaction while I looked at individual performance and individual reference librarian satisfaction. Neither Lynch and Verdin nor I found any significant difference in satisfaction levels of librarians among the different libraries.

No Automation Influence At the present time, automation doesn't appear to influence reference employee satisfaction. This observation is based on studies by two groups.

Lynch and Verdin (1983) performed an excellent study of three large academic libraries in 1971-72 and replicated it in 1986. Little automation existed at the time of their first study, while by 1986, the libraries were largely automated.

In both studies, Lynch and Verdin found that reference personnel reported significantly higher levels of job satisfaction than people working in other areas.
In the replication, reference personnel were actually slightly more satisfied than they had been fifteen years earlier. Circulation personnel were significantly more satisfied than they had been fifteen years before. Lynch speculates that this could be attributed to the automation of routine work.

The other study is by Estabrook, Bird, and Gilimore (1990). They collected data from four academic libraries in 1988 and found that use of technology alone did not make any difference in job satisfaction. They concluded that individual sources of job satisfaction appear to have remained constant at a time when work was becoming increasingly automated. Positive sources of satisfaction were found to be independence, autonomy, working with the public, and interaction with co-workers.

Is Stress the Key?

How can we change our work characteristics to make the most effective use of automation in the provision of services?

When attempting to improve service through automation, stress might be a more profitable focus than job satisfaction. We should look at how our changing job conditions relate to stress and how we can use what we learn to provide the most effective service.

The general consensus concerning stress is that too much or too little stress is not good. Under low levels of stress, there is little stimulation and boredom is the result. Under high levels, physical and mental capabilities are strained. However, under moderate levels of stress, a person is motivated, but not anxious, and can use personal resources to full capacity.

Automation doesn't require that we change in absolute ways. Rather, automation provides us with opportunities to make changes by selecting from a number of possible choices. As we introduce automation, we need to look at products, services, policies, production processes, and organizational structures.

Job Design and Stress

Karasek (1979) has developed an excellent job strain model (see Figure 1) that organizations might use when redesigning work. He suggests there are high levels of strain in some jobs, but not in others.

Those jobs with low psychological demands and low decision control - watchman, janitor, and billing clerk, for instance - often have high levels of alienation and stress due to high levels of boredom.

On the other hand, jobs with high psychological demands and low decision control - waiters, cooks, cashiers, and telephone operators, for example - are subject to high role strain. People in these jobs are constantly under pressure from others. However, they must respond in the way the other person wishes, which is not necessarily the way they would like to respond.

Karasek concludes that highest satisfaction may be found in positions where both high job demand and the opportunity for significant use of judgment occur.

Reference Results Fit Karasek Model

Bunge's (1987) findings on stress fit neatly into this model. He identified the three top reference librarian stressors as patrons (rude patrons, patrons expecting miracles, and patrons breathing
down the librarian's neck); workload (lines of people, not enough time); and feelings of inadequacy (don't know the source, can't find the answer, specialized subject).

Designing or Redesigning the Job

One can certainly imagine the stress created by excessive workload and a lack of control over decision making. Below are a number of ways we can use automation to design or redesign reference jobs to make certain we end up in the active rather than the high strain quadrant of Karasek's model.

One of the great dangers of automation is that we will become technicians jobs will become very routine. Lynch and Verdin (1987) found that satisfaction is higher for less routine jobs. They found that people working in reference departments reported the work to be significantly less routine and that reference personnel were significantly more satisfied.

Reference librarians have considerable discretion in decisions on how to best serve clients. They can tailor responses and services to the specific needs of clients. Reference librarians also have more discretion in how they perform job tasks, following fewer rules and protocols than catalogers, for example.

However, because librarians work in bureaucracies, their employing institutions often impose rigid constraints on work activities through control of the work environment, hours of work, sick leave, vacation time, and access to professional conferences. One danger in this environment is that the introduction of automation will lead to increased job monitoring and time spent on routine tasks because changing work characteristics were not carefully considered when implementing new automated systems.

A second danger from automation is the problem it creates for reference librarians in controlling workload demands and decision latitude. Automated systems tend to increase demands for service as well as expectations of enhanced service. We need to maintain the challenge of work, decision latitude, and control of the workload.

To minimize problems created by automation, a list of suggestions to reduce stress is presented below. These suggestions are divided into two categories: maintaining and enhancing the challenge of the work of the reference librarian; and controlling the workload and enhancing decision latitude.

Design of Work to Reduce Stress

We can maintain and enhance the challenge of the reference librarian's work by using technology to eliminate many routine questions. Here are some examples:

* Use technology to design expert systems to answer routine questions. Do this by keeping track of common questions and developing a simple expert system to answer them. Even so, you still will need to have staff available to assist users with these databases.

* Use technology to enhance user capacity to help themselves on straightforward queries. This can be done as follows:

Refuse to purchase systems with poorly designed end-user software. In public and academic libraries, require menu approaches well suited to novice users.

Require systems with error messages that explain why the error occurred and how to correct it.
Require systems that provide feedback on how the task is progressing.

Require systems that introduce users to controlled vocabulary concepts and that suggest broader and narrower search possibilities.

Require systems to monitor specific errors that cause searches to fail and provide staff with the opportunity to review that feedback.

Some possibilities for controlling workload and broadening decision latitude are as follows:

Use technology to enhance referral ability by developing guidelines for questions to be answered and questions to be referred. For questions to be referred, develop an automated, frequently updated list of referral sources. This will reduce stress and enhance expertise by improving the match between library resources and user needs.

If we aren't careful, automation could increase our lack of confidence in our professional/technical knowledge many new information sources are very expensive and not available in all libraries. Appropriate referral policies can help to avoid feelings of inadequacy.

* Insist that all librarians become familiar with new technologies and participate in decisions on how to best serve the client. Examples of decisions librarians ought to be involved in include:
  * Placement of terminals, number of terminals, printers
  * Selection of system software for online catalog, CD-ROMS, end-user search systems
  * Availability of off-site access to various systems
  * Introduce more flexible scheduling for librarians by searching from off-campus sites for clients.
  * Document the value of service to users by using technology to obtain enhanced user feedback. Use automated systems to measure user satisfaction.
  * Insist on training and retraining.

Many tools are difficult to use and can cause professionals to lose control without practice. Management must allocate funds and staff time to this purpose. Develop experts in certain specialized tools and be clear that some questions require appointments with experts. Use automated systems to handle telephone contacts and to schedule appointments.

* Improve teamwork and co-worker support. A study by Miller, Zook, and Ellis (1989) suggests that support from co-workers is a primary method of dealing with burnout for professional nurses who have a great deal of client contact. A similar system might be equally valuable to librarians.

References


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