Management Concepts

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Management concepts evolve through time. Health care managers can learn new concepts by evaluating classical management strategies, as well as modern-day strategies. Focusing on quality improvement and team building can help managers align the goals of their departments with the goals of the organization, consequently improving patient care.

This article is a Directed Reading.

After reading this article, readers should be able to:
- Discuss traditional management strategies and their relevancy to modern management techniques.
- Explain common managerial roles and behaviors as they relate to the management process.
- List and describe modern-day management concepts.
- Identify the characteristics of effective teams and team members.
- Describe competitive advantage and the importance of internal resources.
- Recognize different quality measures and their purpose.

Health care is the number 1 business industry in the United States today. At approximately $1.4 trillion dollars, health care expenditures account for more than 15% of the gross national product. In 2003, an estimated 543 million diagnostic imaging procedures were performed with an estimated cost of $100 billion.

Radiology managers and technologists must be adaptable to change to implement new quality initiatives that meet regulatory issues of state and government entities and organizational demands. For these reasons and more, it is essential that radiology managers and technologists understand business and management concepts that are identifiable in the business of health care. The following discussion provides technologists with a clearer understanding of how they are vital participants in a growing industry.

History of Management

Management concepts were born in the industrial era and have continued to evolve through today's technological age. This growth requires rapid change in service delivery systems and is defined by quality standards in a consumer-driven market. Many original management theories have influenced today's concepts. By comparing traditional management styles of the 1920s with today's approaches, radiologic technologists can discover theories that can be applied to their workplaces.

Traditional (Classical) Management

Traditional management was developed during the Industrial Revolution because large businesses needed professional managers. Management concepts traditionally were built around 1 of 3 structures: the rules of bureaucracy, which included rules and procedures, hierarchy and a clear division of labor; scientific theories, which involved machine-worker relationships; and administration, which included the flow of information within an organization.

Weber considered the rules of bureaucracy the most logical structure for large organizations because bureaucracies are based on 3 key attributes. Rational authority includes the law, procedures and rules that organizations must follow. Positional authority recognizes the superi-
or vs subordinate relationship, and charismatic authority focuses on the personal qualities of an individual. Weber noted that efficiency stemmed from clearly defined and specialized functions, legal authority, hierarchical form, written rules and procedures, technically trained bureaucrats, technical expertise, competency-based promotion and clearly defined career paths.¹

The scientific concept focuses on machine-worker relationships to improve the efficiency of production, thereby increasing productivity.² By creating jobs that focused on economizing time, human energy and other resources, job design could concentrate on employees’ tasks and specific procedures that employees performed.³ Although Taylor proposed methods designed to increase productivity, Frank and Lillian Gilbreth’s time and motion studies furthered the design of work methods so that managers could streamline organization processes by dividing a job into different components. Gantt added dimension to scientific management with the development of the Gantt Chart, a tool used for scheduling overlapping tasks. Gantt also developed pay incentives for good work, in contrast to penalties for poor work, and recognized that strong leadership and management skills led to effective industrial organizations.⁴

The third structure, administrative management, emphasized the manager and the functions of management. This structure was championed by Fayol and Follett’s theories. For example, Fayol identified 5 functions of management: planning, organizing, commanding, coordinating and controlling.⁵ He also defined 14 key principles of management.⁶ Follett’s managerial concepts, however, were based on the idea that the universal goal of an organization is to achieve an integration of multiple individual efforts into a synergetic whole. Follett’s theories also included the universal principle, which is a circular or reciprocal response such as feedback and 2-way communications, and the Law of Situation, which does not emphasize one “best way” to do anything, but instead emphasizes adaptability to the situation.⁷

Human Relations Focus

Classical management was not without shortcomings, particularly in the area of human relations. The Hawthorne Studies began to shift focus away from classical management strategy to a style that acknowledged the importance of human relations. Specifically, these studies identified a bias that occurs when people know they are being studied. Known as the Hawthorne Effect, these studies demonstrated that working conditions had no cause-and-effect relationship with productivity and that worker attitude was important.⁸ The study, concluded after 20,000 employee interviews, found that employees’ complaints were symptomatic of an underlying problem on the job, at home or in the person’s past.⁹

Barnard’s Acceptance Theory of Authority also delved into the human relations aspect of management. His theory suggested that managers only have as much authority as employees allow them to have. This indicates that authority flows downward, requires acceptance by the subordinate and requires the following conditions to be met:

- Employees must understand what the manager wants them to do.
- Employees must be able to comply with the directive.
- Employees must think the directive is aligned with organizational directives.
- Employees must think the directive is not contrary to their personal goals.¹⁰

Barnard also developed the idea of strategic planning as the executive’s foundation for establishing and maintaining an effective communications system, hiring and retaining effective personnel and motivating employees.¹¹ The human relations school of thought began to progress beyond the behavioral approach, which often did not increase productivity, to an approach that emphasized motivation and leadership techniques. These early behavioral theories were simplistic; they focused on the idea that when managers make employees happy, they create harder-working employees.

Contemporary behavioral science is more complex because it acknowledges the causes and consequences of human behavior. Maslow,¹² for example, described how the fulfillment of specific human needs is a motivating factor and is required for human growth. The design of Maslow’s Hierarchy of Needs is based on a pyramid, with some needs placed higher up in the pyramid than others. The basic concept of this pyramid is that the higher needs in the pyramid only come into focus once all the lower needs are satisfied.

McGregor defined opinions of managerial thinking as being either pessimistic (Theory X) or optimistic (Theory Y).¹³ Theory X assumes that people do not like work and try to avoid it, thus managers have to control and coerce employees. Theory Y assumes that people do not naturally dislike work and it is a natural part of their lives; thus, people are internally motivated to reach work objectives.

The evolution of human relations management theories also included the understanding that an employee’s
creativity and competency were largely untapped by employers—employees want meaningful work, want to be productive and also want to contribute to the decision-making and leadership functions of their organizations.

Integrating Management Theories

The systems theory characterizes an organization as multiple units that operate as a system, based on interdependencies and interrelationships. Organizations have inputs and outputs, interact with their environment as they provide goods and services, and experience reaction in the form of feedback. For example, finance, human resources and radiology departments all attempt to accomplish an organizational goal by working toward synergy, which is the interaction of 2 or more agents or forces so that the combined effect is greater than the sum of their individual efforts. This organizational goal could not be accomplished by a single system. In other words, the combined and coordinated actions of the parts achieve more than all the parts working independently.

Contingency

In the mid 1960s, the contingency, or situational, approach of management emerged. Emphasizing the connection between organizational policies or procedures and the characteristics of the situation, the contingency approach suggests fitting the structure of the organization to various possible or chance events. The contingency approach questions universal management practices. The contingency viewpoint advocates the use or combination of other viewpoints with a focus on circumstances.

Contemporary Management

Contemporary management theories focus on quality as an integral part of goods and services. Today’s theories also focus on the organization’s agility in responding to rapid changes. Senge popularized the concept that dynamics of change occur through employee empowerment and are reinforced by an organization committed to learning. The Harvard Business Review identified Senge’s “The Fifth Discipline” as one of the most important management books of the past 75 years. Senge described learning organizations as “organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together.” Senge also said that learning organizations distinguish themselves from traditional organizations by mastering 5 converging disciplines: systems thinking, personal mastery, mental models (i.e., deeply ingrained assumptions and generalizations), building shared visions and team learning.

Are learning organizations applicable to health care? Mayo Clinic leaders seem to think so. According to an article written by Cortese and Smolett, the problem with the U.S. health care system is that “it isn’t a system, but currently a myriad of professionals and organizations [who] provide health care, but no vision has ever been articulated for the disparate parts to function together and learn from each other.”

Managing in Health Care

The health care industry faces challenges far greater than those that confront most other industries. In health care, technology and regulations often require radical change; this characteristic is reflective of a complex, competitive and rapidly-changing environment. Managers also must balance quality-of-life issues with profits; therefore, today’s health care managers must develop critical-thinking skills and business sense beyond their own organization.

The Healthcare Leadership Alliance identifies business knowledge and skills as the ability to apply business principles to the health care environment. This model can help health care organizations transition from a reactionary organization to one that is proactive. Like most businesses today, senior leaders establish a purpose and goals, or vision and mission, as to where they want to be in the future and how they expect to get there.

Both vision and mission statements are important because they serve to unite, guide, energize and motivate employees. More specifically, the vision statement is a guiding philosophy that reflects the organization’s decisions, policies and actions. The mission statement is a clear, engaging target to help the organization move forward. Vision is based on fundamental motivating principles, values and tenets associated with life. It tends to be abstract in contrast to the mission, which is clear, engaging and often exciting. Importantly, both vision and mission identify and influence ways of formulating competitive strategies.

Competitive advantage is an individual organization’s capability to successfully compete based on the uniqueness of its internal resources. Internal resources are classified into physical, human and organizational capital categories. To establish competitive advantage, organizations must integrate the performance of tasks and activities. This advantage can only be achieved if the organization’s resources are “valuable, rare, costly to imi-
tate and nonsubstitutable. Physical, human and capital resources are crucial to an organization’s success. Most imaging managers understand that acquiring modern technology, skilled employees and the financial capability to purchase equipment is an important aspect of providing quality service, which in turn helps attract and retain employees and sustain competitiveness. A lack of internal resources can contribute to staffing problems and the inability to provide advanced technology. Radiology managers should also remember that these same internal resources affect the entire organization.

Internal resources are not the only challenges radiology managers face. Managers must find ways to cope with health care costs, managed care constraints, regulatory issues, budget constraints and the need to attract and retain skilled staff. In a service industry where consumer demand drives the expansion of internal resources, managers cannot ignore quality of service. Managers constantly must find new and innovative ways to deal with workforce demographics, cultural diversity and the cost of technology to effectively compete. Finally, selecting and forming alliances with competitors complicates corporate structure and tends to negatively impact an organization’s culture.

Organizational culture is unique to an individual organization. Integrating or changing culture means developing a new sense of who and what the organization is. Changing identity is an extremely daunting task because culture is all about the personality, people and relationships that have been long-associated with the organization. These elements give the organization life and personality.

**Management as a Process**

The management process associates specific managerial concepts with what managers actually do and the roles they play. By examining these processes, managers can identify their roles and skills and acquire further knowledge that is useful to their unique situations. Understanding the process also can help technologists gain insight into techniques that impact their work environment.

The traditional concept of the management process focuses on what managers do (ie, planning, organizing, leading and controlling) and the roles they play (ie, interpersonal, leader and liaison). The systems viewpoint, on the other hand, expands the management process to include decision-making based on internal and external concerns. The contingency viewpoint focuses on the independent management processes that rely on a manager’s conceptual skills, decision-making capabilities, interpersonal characteristics, effective communication and abilities negotiating and delegating talents. All 3 viewpoints suggest different ways radiology managers can develop processes to establish a framework for short-term and long-term strategies. Radiology managers must develop a strategic vision for their department that is in line with the vision and mission of the health care facility. It is important for managers to affirm the organization’s goals.

In general, management is simply a group of actions that uses resources to achieve a goal. It is important for a manager’s activities to coincide with the organization’s goals. Managers not only participate in activities, but they also assume certain roles associated with their activities, which are characterized as interpersonal, informational and decisional. Overall, the skills and knowledge of a manager collectively signify the ability to understand information, the ability to acquire new information and the capability of acting on that information.

Given the complexities of the health care environment, radiology managers must be poised to develop initiatives and processes that exhibit vitality to encourage staff participation. Because health care management continues to change, managers constantly face new information, technology and management strategies. Managers not only must be good leaders, but they also must be businessmen and women and marketing professionals. They must flow with the changes and exhibit positive attitudes for the staff. It also is crucial that managers exhibit transparency by encouraging an open environment, demonstrating strong communication skills and holding themselves accountable to the staff and health care facilities. These skills help managers build trust with their staff, their employers and the public.

Transparency supports open communication beyond a one-way, top-down approach so that people understand where the organization is going and why. Such communication also requires that managers follow through with communication to ensure consistency and understanding. This helps create an environment where people feel safe to talk and are willing to share information internally and externally with stakeholders, customers and the public.

Long-time managers might be somewhat baffled by modern management since the concepts are in sharp contrast to traditional management. Over the past 20 years, some changes in concepts have been subtle. Current strategies suggest that old concepts do not offer the versatility to provide service and meet demands in
today's health care environment. For example, a systems-thinking organizational concept makes sense when the relationships between radiology and other departments are considered. In a systems-thinking organization, the radiology manager recognizes the impact that 1 area has on another area and is concerned about events that occur outside the department that influence patient care. A manager must weigh the overall benefits beyond the imaging department. Using a systems-thinking approach, the manager develops cohesive processes by involving staff from all departments to assess both negative and positive events.

Traditional radiology managers develop policies and procedures unique to their areas without considering the effect their decisions will have on other areas with regard to patient and physician services and employee relations. Even though their department interacts with other departments, their management focus remains internally isolated and reactive. Traditional managers might meet with other departments to discuss positive outcomes, but managerial attitudes often focus on independent ways for achieving results instead of interdependent methods. Also, strategies are reactive in nature, focused on protecting individual territories rather than achieving greater service standards for the organization. Whether the radiology department is part of a hospital or a free-standing facility, it is dependent on nonradiology staff to perform services.

All patient interaction must be aligned with the mission of the organization; every interaction builds an image of the organization, what it aspires to be and how it performs. Managers must encourage employees to perform and build relationships that complement other departments within the health care organization. Patient encounters involve more than clinical interactions. Lack of compassionate care, lengthy wait times or the appearance of a disorganized department can negate positive staff encounters. Thus, managers must consider environmental, maintenance and billing issues as well. Radiology processes and policies are only effective when all factors are considered equally important to achieve quality patient care.

Further, when traditional radiology managers only view their role as authoritative, they tend to ignore staff feedback when developing policies and processes. In this environment, staff members who comment on department weaknesses are often considered troublemakers rather than contributors. In traditional organizations, communication tends to flow from senior management to employees, who have little or no say in how the department is run. Therefore, employees often lack the motivation and inspiration to respond effectively when problems occur. Ultimately, this hinders the organization's competitive advantage in relationship to internal resources. The nature of bureaucratic practices is not conducive to meeting health care challenges in the 21st century. Today's health care facilities must focus on goals that recognize internal resources that will drive success.

Before organizational vision and mission statements became standard, organizations lacked a clear focus. This lack of purpose diminished departmental relationships and nurtured interdepartmental competitiveness and rivalries. This environment encouraged cross-functional purposes that divided operations. Comprehensive management meant high productivity, reduced operational costs and a clear focus on the budget. In contrast, modern-day managers work toward the same goals, but use broader philosophies, perspectives and attitudes.

Becoming a learning organization requires more than changing a few practices. It is certainly important to eliminate negative attitudes and principles, most notably, “If it ain’t broke, don’t fix it.” Health care organizations, specifically managers, can be successful with a systems-thinking management process that encourages integrated learning and cooperation.

**Systems Thinking**

According to Carr-Ruffino, “Systems thinking is an effective strategy for becoming a learning organization [because] it recognizes the interdependence of all systems and subsystems [and is] useful in identifying the vulnerabilities, limited understandings and problems of the past.” Systems thinking uses teams to align efforts and skills and improve processes, encouraging a collective understanding where staff can build upon a shared vision. Not only is this useful in problem solving, but it is often quicker and smoother in implementation. Teams reinforce and adapt to changes with anticipation and a shared vision. Team learning reinforces a learning culture and helps drive performance. The ideal team strategy brings together employees who represent different departments. These teams work together to seek value-added services that will enhance services and improve patient interactions, creating positive experiences for everyone.

For example, a team comprised of staff from the registration, finance, radiology, lab and emergency room departments might work together to come up with ways to improve delays in patient services. First, team members...
must address and understand various constraints within their department that impede services. The role of team members is to brainstorm and develop more efficient methods, realizing that every suggestion influences everyone on the team. Team members can find solutions as they begin to understand the problems that hinder effective operations within and between each department. Teams who willingly share information in the spirit of organizational excellence find themselves facilitating changes that make a difference to patients.

The systems-thinking concept takes hold when various departments recognize their reliance on each other for success in contrast to an independent nature and reactive approach to problem solving. In essence, their interdependencies are what drive organizational excellence. Because patients move through many aspects of health care services, it is essential that all aspects continually affirmed the mission and vision of the organization.

The Learning Organization

In broad terms, a learning environment involves a shared commitment to learning. All staff levels equally commit to learning about the separate units of the organization and their processes. Staff members commit to change and willingly help others learn by sharing, cooperating, leading and participating in organizational decisions. Learning organizations are successful because of individuals who are dedicated to lifelong learning and improvement. Similarly, technologists participate in ongoing education so that they can continually improve and broaden their expertise to keep pace with the explosive growth in technology and standards of patient care. As an industry, radiology departments must comply with multiple regulatory agencies, focus on service excellence and commit to improving service excellence standards.

The workplace setting provides numerous opportunities for learning. Day-to-day activities involve communication, behaviors and attitudes between coworkers that extend beyond the staff and influence interactions with patients. Such opportunities are present because of workplace diversity, created by differences in age, culture, ethnicity, religion, gender, sexual orientation and physical ability. Appreciating diversity opens the door to vast resources. Additionally, costly and adverse legal sanctions can occur if managers or employers violate federal and state employment laws. Effective management begins with leaders who recognize and respond to the specific needs of all employees. This creates an inclusive multicultural approach to diversity management where all employees are respected and appreciated.

Conflict resolution, negotiation, employee relationships, employee empowerment, leadership effectiveness, continuous learning, continuous improvement, productivity, total quality management, synergetic teams and trust building are all integral to valuing diversity in the workplace. Unfortunately, when radiology managers do not accept or value diversity, they can find themselves the subject of complaints from subordinates or of legal actions. Additionally, employees can exhibit poor work performance when they do not feel respected or valued. Therefore, a learning culture is paramount in creating and sustaining employees who are motivated to comfortably and respectfully learn from each other.

The concept of empowering staff is vital to developing a learning organization because people learn from each other, for better or for worse. Learning is not a top-down phenomenon; it exists in all directions. Senior leaders should be open to learning, too. The cycle of teaching, learning and leading creates an organization that teaches, learns and leads. This is especially valuable in health care organizations where many skilled and educated employees influence the overall value of the organization. Radiology managers must develop their core resources, serve as mentors and share information—all of which serve as a foundation for effective leadership and are paramount to the future of radiology departments. Wise managers recognize that they also can learn from their staff.

Employees are costly to replace. In addition to the years of knowledge that can disappear with an employee, the process of recruiting, interviewing, screening and hiring new employees is expensive. Additionally, the entire process may take weeks or even months before the right candidate is found, during which time additional work burdens are cast upon an already stressed department. Unhappy employees are also costly. Absenteeism, lack of motivation, low productivity levels and poor interdepartmental relationships negatively affect morale. Employee retention should be every manager’s goal. Continual improvement within the department helps reduce the organization’s employment costs and additional burdens on the staff.

As previously mentioned, learning organizations facilitate department stability, improve employee retention and encourage employee participation, thereby increasing organizational strength in competition. Turnover costs the organization in the ability to successfully compete. High rates of turnover send a negative
message about the organization that can be detrimental to prospective employees or consumers. It also negatively affects all other business relationships. Although employee retention appears to affect only 1 department, the long-term impact on other areas is pervasive, affecting patient services and the entire organization. Thus, when radiology managers find their departments short-staffed, they must cooperatively work with other departments to minimize patient service disruptions. Flexibility is key under such circumstances, once again demonstrating the value of a systems-thinking organization.

Managing Change

A systems-thinking organization, supported by a learning organization, is flexible and adaptable with common health care trends. This can be especially important in an industry where alliances and mergers are common. Indeed, integrating organizational cultures can be extremely complex and quite disconcerting. The very nature of integrating cultures creates unpredictable situations for managers. Getting different cultures to agree on common goals and values is not an easy process. Likewise, it can be difficult for managers to find ways to attract, motivate and retain different groups of employees.79 Such situations require astute communication, trust demonstrated by consistent behaviors and actions, and collaborative decision making. Merging business cultures takes time and requires attention, recognition, appreciation and respect from everyone involved.

Management’s challenge is to create an environment where employees confidently deploy the overall goals of the organization and where employees are empowered to be responsive to patients and coworkers. Managers should instill a willingness for and openness to change. Regardless of the change, apprehension likely will exist along with a fear of what is to come. As previously mentioned, the scope and magnitude of challenges should be seen as all-inclusive, aided by the support mechanisms of a learning culture where everyone works together to achieve the same outcome. Work groups can begin to effectively identify resistance as an inherent and natural deterrent of change.

Manager as Change Agent

Effective change requires old behaviors to be replaced with new and improved behaviors.86 A change agent seeks out better ways to accomplish tasks, but this often requires challenging old ideas and behaviors.

Change agents must have the ability to achieve results. This type of individual recognizes that change is not negotiable, but it can be influenced. Choosing the appropriate time to introduce change and not seeing a lack of resources as a barrier are necessary qualities for change agents. According to Freed,86 “The effective change agent uses ‘inadequate’ resources to catalyze rather than forestall momentum.” Freed also states that change agents “maintain a creative tension in which resources become rewards for results, not prerequisites to pursuing them.” Influenced and strongly motivated by the ability to “see” the organization’s vision, the change agent confidently presses onward and intervenes knowing there will be resistance, yet still managing to create momentum along the way.

Although the goal is sustained change, a maintainable competitive advantage is probably nonexistent. Internal resources, however, are the strongest link with regard to strategic competitiveness. Competition, performance and customer satisfaction continually change. The following ideologies can help management acquire and retain a competitive advantage: change the rules, develop strategic foresight, innovate, time your actions, think and act quickly, customize your services, re-engineer, manage diversity, empower your people and continue to learn.89

Quality-driven Services

Although key management concepts are important, those concepts must be integrated and applied. Integrative management provides a framework for various management concepts. This framework helps managers create quality service standards and measure success. As previously mentioned, competition, performance and customer service are not only the challenges but also the drivers of all health care organizations. Therefore, the path toward service excellence must be effectively measured. A variety of tools exist to help in this quest.

The Foundation of Quality

Quality goods and services must meet or exceed customer expectations. It also is important to note that the customer defines quality. The following list describes service quality dimensions:

- Timeliness, performed in a promised period of time.
- Courtesy, performed cheerfully.
- Consistency, giving all customers similar experiences each time.
Convenience, providing accessibility to customers.

Completeness, providing full services.

Accuracy, performed correctly each time.

Total quality management (TQM) is a management strategy, using concrete data and problem solving in a team-based environment, that stresses complete customer commitment and continuous improvement.

Three important goals associated with TQM are boosting customer satisfaction, reducing the amount of time required to introduce products into the market and cutting costs. Total quality management primarily is associated with the philosophy and teachings of Deming in the late 1980s and is based on the principle that it costs less to make quality products than defective ones.

Additionally, Deming’s 14 Points for Management focus on an organization’s size, speed, innovation and quality as they influence competitive actions and outcomes. The following points were created to help revolutionize the way Western companies conduct business:

- Create constancy of purpose for improvement of product and service.
- Adopt the new philosophy.
- Cease dependence on inspection to achieve quality.
- End the practice of awarding business on the basis of price tag alone.
- Improve constantly and forever the system of production and service.
- Institute on-the-job training.
- Adopt and institute leadership.
- Drive out fear.
- Break down barriers between departments.
- Eliminate slogans, exhortations and targets for the work force asking for zero defects and new levels of productivity.
- Eliminate numerical quotas for the work force and eliminate numerical goals for people in management.
- Remove barriers that rob people of pride of workmanship.
- Encourage education and self-improvement for everyone.
- Take action to accomplish the transformation.

Deming’s comprehensive list is a roadmap from which managers can create and establish standards of excellence. These 14 points of management can help health care organizations focus on quality care, reduce variance throughout the country, lead to greater customer satisfaction and reduce inefficient services.

Quality assurance (QA) focuses specifically on variation in quality among different facilities. Traditionally, QA programs identify errors and inconsistencies and then examine ways to eliminate these outliers from the organization’s output. The goal of a QA program is to develop a formal system where organizations and departments consistently produce high-quality products and services.

As today’s leading business industry, health care must incorporate quality performance criteria and strategies if it is going to succeed.

The most well-known quality initiative and recognition program is the Baldrige National Quality Program. According to the National Institute of Standards and Technology, the Baldrige Criteria were established in 1987 to “recognize U.S. organizations for their achievements in quality and performance and to raise awareness about the importance of quality and performance excellence as a competitive edge.” The award sets standards of excellence applicable to manufacturing, service, small business, education and health care. Nonprofit and government organizations will be included in 2006, with awards for these categories beginning in the year 2007. The Baldrige Criteria includes the following 7 categories, which any organization can use to improve overall performance:

- Leadership. Examines how senior executives guide the organization and how the organization addresses its responsibilities to the public and practices good citizenship.
- Strategic planning. Examines how the organization sets strategic directions and determines action plans.
- Customer and market focus. Examines how the organization determines requirements and expectations of customers and markets; builds relationships with customers; and acquires, satisfies and retains customers.
- Measurement, analysis and knowledge management. Examines management, effective use, analysis, improvement of data and information to support key organizational processes and the organization’s performance management system.
- Human resource focus. Examines how the organization enables its work force to develop its full potential and how the work force is aligned with the organization’s objectives.
- Process management. Examines aspects of how key production, delivery and support processes are designed, managed and improved.
- Business results. Examines the organization’s performance and improvement in its key business areas: customer satisfaction, financial and marketplace performance, human resources, supplier and
partner performance, operational performance and governance and social responsibility. This area also examines how the organization performs relative to its competitors.  

Since the Baldridge Award for health care was created in 1999, there have been 116 applications submitted. The Mayo Foundation and Clinic hosted a Baldridge Health Summit in 2000 that involved 10 leading health care institutions in the United States. Special sessions on the applicability and use of the Baldridge Criteria in health care were held at the Institute for Healthcare Improvement conferences in 1999 and 2000. Motorola University hosted a 1-week course on Baldrice and quality improvement in health care in 2001. Additionally, Richard Norling, chief executive officer of the leading health care supply distributor Premier Inc., served as president of the Baldrice Foundation in 2001.  

Quality Improvement Strategies

Several quality improvement strategies are common in health care and specifically applicable to radiology departments. Continuous quality improvement is one management strategy in the health care setting. This strategy is used when referring to the concepts of total quality management (TQM), continuous quality improvement (CQI) or a combination of both (CQI/TQM). The goal of CQI is to control variation and eliminate poor quality. Clearly, the organizations seek customer satisfaction and, in doing so, confirm the organization’s success. Although CQI/TQM has been beneficial to some hospitals, it is a cumbersome strategy that lacks immediate responsiveness, the ability to achieve organizational change or the flexibility to integrate the complexity of health care and its wealth of professional knowledge. In general, CQI/TQM is limited in scale and impact. Additionally, this strategy also has a weakness when applied to health care: determining the definition of quality.  

Reengineering is another quality strategy and it is similar to CQI/TQM in that goals focus on improving processes. However, reengineering begins with the customer and the interdependent relationships between tasks. The ultimate goal of reengineering is to achieve a more effective, efficient work environment. Many hospitals find reengineering to be successful in some areas, but it often fails to engage staff fully.

A new perspective on management strategy is Six Sigma. This strategy handles quality variations and has been used successfully for years in manufacturing as a quality improvement plan. Six Sigma uses data analysis and other problem-solving techniques to evaluate the ability of a process to perform defect-free, where a defect is anything that results in customer dissatisfaction. The ultimate goal of this strategy is to curb, and eventually eliminate, the number of defects that occur in a given process through the use of specific projects under a specific methodology. This specific methodology must define, measure, analyze, improve and control (DMAIC) the specific projects. Six Sigma contains the following steps:

- Define the project’s purpose and scope, focusing on quality factors.
- Measure data that can be compared for performance definitions and improvements.
- Analyze the root causes of problems as evidenced by actual data.
- Improve performance through the implementation of processes that will eliminate the cause of error.
- Control processes by evaluating performance before and after the improvement attempts; initiate a monitoring system to reduce future errors.

DMAIC’s systematic process ultimately leads to a precise identification of a problem, defined methods to appropriately measure and analyze the problem and concrete performance improvement. This strategy also helps control the process, which is a departure from CQI/TQM’s failure to handle ongoing problems. In the health care setting, Six Sigma has been used to streamline processes, thereby creating faster reimbursements and developing better ways to deliver care to patients and their families. Six Sigma is effective because teams work together to identify and resolve problems, which leads to reduced errors and increased efficiency. This management strategy is especially useful in radiology departments. Radiology departments must interact with many other departments, which often leads to inefficiency and delays. Using a team of staff from different departments who are involved in the process from beginning to end can lead to enterprise solutions fairly quickly. This approach also allows team members to monitor results and provide feedback. Although quality strategies are not easy, they are necessary to improve the organization as a whole.

One of Six Sigma’s most effective tools is benchmarking. This tool allows radiology managers, technologists and other staff to set parameters for achieving results. Benchmarking also brings attention to problematic areas that consistently and negatively influence quality initiatives. When this tool is used effectively, it also can reinforce positive change. Because benchmarking can
be used to compare an organization with itself or with others outside the organization, hospitals can learn from other hospitals. Benchmarking enables managers to mimic standards, goals and objectives that are used successfully in other organizations. By networking with progressive organizations, managers and technologists can garner feedback and establish techniques that are useful to their particular departments. The quest for quality is an ongoing and measurable process, but it must involve everyone and be assessed and evaluated along the way.

Team Concepts

Teams are an integral part of the movement toward improved and sustained quality standards, regardless of an imaging department’s size, the number of patients serviced or the number of examinations performed. No single process, department or individual is able to achieve success without input or influence from others. As previously mentioned, there are multiple radiology interdependencies involved with patient services. Once the patient enters the radiology department, a chain of events begins. Although the chain consists of separate events, these events do not occur in an isolated bubble. Additionally, patients often move through the department in various stages of services, coming in contact with multiple staff members.

Many radiology managers might think they have identified the best process to move a patient through the department, but there is almost always room for improvement – most notably through the use of teams. In health care organizations, teams can be effective planning tools and the key to quality patient care. Each member of a well-constructed team should share the following characteristics:

- Commit fully to a common goal and approach.
- Be mutually accountable to one another and the organization.
- Maintain a culture where trust and collaboration are valued.
- Be willing to compromise, cooperate and collaborate to reach a common goal.
- Understand the benefits of team synergy, where the positive results of a collective team effort are greater than any single team member can achieve alone.20

To build an effective team, several factors must be considered. The size of the team is important. A smaller team with fewer than 10 people is usually best because more members make working together more difficult.

Members should have individual skills that complement each other, as well as a common skill set that includes technical, interpersonal communication, problem-solving and decision-making skills. Possibly the most crucial factor in building a successful team is having a common, meaningful purpose or vision that provides direction and momentum and encourages long-term commitment. Thus, teams should create specific goals that help achieve the overall purpose in a specific, measurable and realistic manner. These goals should clearly communicate the team’s purpose and provide focused results. Team members also need to define and agree on a single, unified approach to achieve the goals and the vision as a whole. By holding themselves and each other mutually accountable, independent contributions and the overall team outcome can be successfully achieved.20

Using teams to make quality improvements can help radiology departments achieve meaningful results and define their success in measurable terms with better performance and quality services.

Conclusion

Health care is a dynamic industry. Managers and technologists confront changes on a daily basis. It is vital for health care workers to conceptualize and then apply various integrative theories in response to this complex environment. A systems-thinking organization, supported by a learning culture, can provide the versatility, flexibility and speed required to meet quality standards. The impetus for change appears to be ongoing. Successful change can occur when employees are motivated and supported, especially in a learning environment.

References


6. Infed. Peter Senge and the learning organization.


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Management Concepts

To receive Category A continuing education credit for this Directed Reading, read the preceding article and circle the correct response to each statement. Choose the answer that is most correct based on the text. Transfer your responses to the answer sheet on Page 170 and then follow the directions for submitting the answer sheet to the American Society of Radiologic Technologists. You also may take Directed Reading quizzes online at www.asrt.org. Effective October 1, 2002, new and reinstated members are ineligible to take DRs from journals published prior to their most recent join date unless they have purchased a back issue from ASRT.

*Your answer sheet for this Directed Reading must be received in the ASRT office on or before this date.

1. Traditional management concepts were built around all of the following concepts, except:
   a. scientific theories.
   b. administrative theories.
   c. the rules of integration.
   d. the rules of bureaucracy.

2. The goal of the scientific concept is to improve the ________ of production processes.
   a. efficiency
   b. ingenuity
   c. functionality
   d. profitability

3. Follett's managerial concepts incorporated the idea that an organization's primary goal is to achieve an integration of multiple ________ efforts into a synergetic whole.
   a. individual
   b. group
   c. departmental
   d. organizational

4. The Hawthorne Studies helped shift management focus away from classical management to a management strategy that focused more on ________.
   a. human relations
   b. team learning
   c. empowerment
   d. accountability

5. The Acceptance Theory suggests that managers only have as much ________ as employees allow them to have.
   a. influence
   b. transparency
   c. authority
   d. capability

6. In a ________ theory approach to management, the combined parts achieve more together than any single part can achieve alone.
   a. learning
   b. systems
   c. communication
   d. scientific

Continued on next page
Directed Reading Continuing Education Quiz

7. The contingency management approach emphasizes the fit between ______ approaches and the ______ of the situation.
   a. organizational; goals
   b. organizational; characteristics
   c. individual; goals
   d. individual; characteristics

8. An organization where people continually increase their capacity to create the results they desire is called a ______ organization.
   a. focused
   b. systems
   c. motivated
   d. learning

9. A hospital’s ______ statement defines its purpose and its ______ statement serves to move the organization forward.
   a. mission; vision
   b. vision; mission
   c. financial; focus
   d. focus; financial

10. Competitive advantage is achieved when organizational ______ are valuable, rare and costly to imitate.
    a. goals
    b. resources
    c. strategies
    d. outcomes

11. The management process associates specific managerial concepts with what managers ______ and the roles they play.
    a. do
    b. need
    c. think
    d. demand

12. The contingency management viewpoint is based on independent ______ processes.
    a. employee
    b. team
    c. management
    d. organizational

13. ______ supports open communication so that employees feel safe to talk, are willing to share information and understand where the organization is going.
    a. Learning
    b. Leadership
    c. Mentoring
    d. Transparency

14. All staff interactions with patients should be aligned with the ______ of the organization.
    a. goals
    b. mission
    c. vision
    d. needs

15. According to this directed reading, employee morale is affected negatively by:
    a. absenteeism, lack of motivation and low productivity.
    b. bad attitudes, lack of flexibility and low enthusiasm.
    c. poor communication, lack of direction and high stress.
    d. inconsistency, lack of encouragement and high expectations.

16. Change agents must recognize that change is ______ negotiable.
    a. true
    b. false

Continued on next page
Directed Reading Continuing Education Quiz

17. Which of the following include the characteristics of quality service?
1. efficiency
2. accuracy
3. completeness
   a. 1 and 2
   b. 2 and 3
   c. 3 and 4
   d. 1, 2 and 3

18. Total quality management is a strategy that uses concrete data and _____ to emphasize continuous improvement.
   a. problem solving
   b. benchmarking
   c. motivation
   d. organization

19. Deming’s 14 Points of Management focus on an organization’s size, speed, innovation and _____.
   a. capability
   b. quality
   c. versatility
   d. efficiency

20. Traditionally, quality assurance programs identify _____.
    a. successes
    b. weaknesses
    c. strengths
    d. errors

22. The ultimate goal of the Six Sigma strategy is for all processes to perform _____.
    a. without defects
    b. effortlessly
    c. efficiently
    d. without complications

23. One of Six Sigma’s most effective tools is _____.
    a. examination
    b. negotiation
    c. benchmarking
    d. planning

24. Effective team members should have the following skills:
    1. interpersonal communication
    2. problem solving
    3. decision making
    a. 1 and 2
    b. 1 and 3
    c. 2 and 3
    d. 1, 2 and 3

25. When building a successful team, it is important to have a common, meaningful _____ that encourages long-term commitment.
    a. purpose
    b. background
    c. objective
    d. culture