

What Academic Librarians Should Know about Creative Thinking

John A. Olson - Assistant Librarian
Penn State - Erie The Behrend College
Station Road, Erie, Pennsylvania 16563
<jxo@psulias.psu.edu>

Abstract

Librarians need to explore their individual creativity. Creative thinking is an underutilized problem-solving skill that can be learned and applied to any situation. This article explains how librarians can understand, develop, and use their creative thinking abilities and skills in the workplace.

With the influx of new technologies and institutions trying to reinvent themselves, libraries are becoming a more hurried work environment. Decisions need to be made about what to buy or cut while overcoming any resulting problems that follow. Deciding who does what, where, when, and how, can be quite stressful. Total Quality Management (TQM) and Continuous Quality Initiatives (CQI) have been the focus, in recent years, of studies on how to answer some of these work-related problems. An overlooked problem-solving skill that library administrations have only scratched the surface is the creative thinking ability of the library staff. Administrators should foster the creative ability of each and every person on their staff and recognize that creativity and innovative solutions can come from anywhere. Creative input must be seen and evaluated equally at all levels of the organization and not judged by who or where the ideas came from. Creativity has no hierarchy.

Creativity within the organization can happen at the individual, the group, team, or organizational level. Individuals with a creative bent can be a fountain of ideas if encouraged by those around them. Group creativity can be an exciting experience if all members are open-minded, and can suspend their judgements about another group member's ideas. All members must be in tune and move toward the same goals in order to be successful. Institutional or organizational creativity can be accomplished if the top library administrators embrace and encourage employee empowerment. This empowerment will create an organizational culture change that will allow the library to operate in a more open, free-thinking work environment. Organizational creativity greatly depends on the administrative style, size, and structure of the organization.

In general, the larger the organization the greater the tendency for bureaucratic and

adaptive structures to dominate.ⁱ This tendency is also true for large university library environments. For the most part these organizations can display the “super tanker” effect by being very bureaucratic and highly structured in nature with limited flexibility in how fast changes are implemented. Most policy and operational decisions, reorganization efforts, or the redistribution of staff or funding in these large organizations are made at the administrative or committee level, and an individual’s creative solution may get lost in the shuffle, without getting the consideration it deserves. Smaller institutions might be thought of as “tug boats” because they are able to move much more quickly to implement new ideas and make decisions on creative solutions. Regardless of the library organization’s size, everyone needs to examine and explore creative thinking and develop an awareness of where creative ideas come from. Everyone has the capability to be individually creative and bring forth new and innovative ideas and solutions, although many do not realize it.

This article will review the basic tenets of creativity and creative thinkingⁱⁱ and describe how this thinking process can be encouraged and applied by the individual library practitioner. The article also discusses how an empowered library culture can move the organization into a new frontier of information retrieval for the benefit of those that the library serves.

CREATIVE THINKING PRINCIPLES

Creative thinking is the process of modifying ideas from an existing knowledge base with the ability to form or bring forth a new thought by using imagination and intellect. It is a part of an individual’s intellectual personality that can be applied to everyday situations.

Creative thinking is built around three human thought processing functions:ⁱⁱⁱ

- Strategy: How to set goals, and how to plan, evaluate, and organize the internal thought processes used to handle any situation or problem.
- A knowledge base or knowledge pool: The acquired information about a particular group of related subjects where information can be drawn upon for use in the resolution of a specific problem or situation. Solutions to problems cannot be formed if there is no background knowledge or history of prior problems or situations.
- Attitudes and motivations: These factors dictate why individuals make specific decisions and take certain directions for a desired result to occur. Personality, self-confidence, perseverance, and personal energy levels influence these. These attitudes and motivations are acquired from a lifetime of interactions with people.

Creative thinking is driven by two components: convergent and divergent thinking.

Every decision made during the day involves these two components.^{iv} Divergent thinking is the process of making a list of all possible choices, such as asking the ordinary question. “What am I going to eat for breakfast?” The choices being made are diverging or broadening in scope and number with each addition to the list that is being selected from a knowledge pool. When it is determined that the list is complete, the convergent thinking process takes over. This process evaluates why one item is chosen over another. It converges or narrows down the choices to a single outcome: “I want oatmeal!” This process is used for trouble shooting, or for the selection of items.

The divergent-convergent thinking process can best be explained by what happens at the reference desk when a patron asks a question. When listening to a reference query the librarian must gain an understanding of what the patron is asking. By tapping his or her knowledge pool

of reference sources, and as details are given about what type of information the patron is seeking, the librarian can create a list of possible sources that may best answer the patron's request. As the patron forwards more information, the list of sources that will best provide the answer converges or narrows. When the patron has finished providing all the information, the librarian may still have too large of a list of possible sources. This may prompt the librarian to ask more questions to help narrow the focus. Only when the librarian has sufficient information about the query can he or she converge his or her knowledge pool of resources down to the point where the patron can be provided with a list of the best possible sources to answer the query specifically. In more complex applications of creative thinking, Karl Albrecht suggests five stages that creative people use to take an idea from realization to reality.^v The first stage is absorption. Creative people absorb all the information around them by listening to new ideas and different perspectives with no biases on their part. They question coworkers from inside as well as individuals from outside the organization about ideas and solutions they are thinking about. They then let their imaginations take the idea apart and reassemble it -- take it apart again and reassemble it in a different way -- repeating this over and over again. Stage two is inspiration. By taking the bits and pieces of these various ideas, thoughts, hunches, and odd facts, and tossing them around in the mind, various pieces will fall into place and form a variety of new and different solutions. The next stage is to test the idea. At this stage it is important to permit the failure of any and all possible solutions. Failure allows more ideas to be created. Failures teach more than forcing the success of the initial best guess.

After the testing stage is complete and a viable solution has been selected, Albrecht's fourth stage is to refine the process as needed. Refinement smooths to allow for easy

application. Finally, the chosen solution needs to be marketed and explained to all who will use or implement it. Explanations should include the whys, hows, and what fors for those who will use or implement the solution. The initiator should clearly show through verbal, written, or illustrated explanation how the solution will eliminate or reduce the recurrence of the problem. At this stage, questions need to be asked. Will the people closest to the problem be able to understand and use the solution? Can the solution be implemented gradually, department by department, or can it be done all at once across the entire organization? Does the solution need to be scrutinized at higher levels within the organization before implementation?

One example of this process was used in a complete library inventory recently undertaken at the author's library. The situation was that, over time, parts of the shelflist neither matched materials on the shelves nor the holdings in the online catalog. It was essential to define the scope of the problem in order to understand what needed to be done to correct the situation: (Albrecht's stage #1). Solutions were created to address the question of how best to handle each of the six problems areas that were encountered: (Albrecht's stage #2). As a test, the T (technology) portion of the library's collection was used to refine or modify any of the solutions that would be used to correct the problems encountered on the shelf: (Albrecht's stage #3). The solutions worked on the test section, but in the process three other types of problems emerged and solutions were developed to deal with them: (Albrecht's stage #4). After the test section was completed, training was implemented for the staff assigned to the project: (Albrecht's stage #5). The project went forward and was completed on schedule.

Not everyone is equally adept at all five of Albrecht's stages of this process. Some individuals will have a greater skill with some areas than with others. It is rare to find an

individual who can perform at all five stages equally successfully in all situations. Yet, the library staff will probably contain people who can perform one or more of these creative-thinking stages. These individuals can be gathered into a group or committee. With all five elements present, the group can now proceed with the process of creating and implementing the best ideas and solutions.

ATTRIBUTES TO COMPLIMENT CREATIVE THINKING

Two essential ingredients of creativity and creative thinking are curiosity and imagination. Imagination helps explore the possibility of creating solutions that might lead to new discoveries and possibilities.^{vi} Imagination is the ability to think beyond the boundaries of the everyday world; it gives individuals a chance to think “out-of-the-box.” Lev Vygotsky believes that creativity starts with a person’s childhood imagination which progresses to a thoughtful mode of thinking during adolescence that combines inner speech and conceptual thinking that finally reaches maturity in adulthood.^{vii} Imagination is the key to creating new things and new thoughts about what and who we are and what we need to do to provide better service to the library’s patrons. Albert Einstein said, “Imagination is more important than knowledge.”^{viii} Without imagination, no new knowledge can be created.

Curiosity is the allowance of attention to things or ideas for their own sake. As individuals age, they lose their sense of wonder and awe for new things, and without awe life becomes routine. A creative person’s curiosity is a constant source of fresh new ideas.^{ix} Humor, an important element in helping to stimulate creative thinking,^x lets people think and process ideas and concepts in a totally different manner. Conveying humor through an odd

observation can break the tension and get the mind unstuck from the thick mire of repetition, conformity, and jargon being used today in the work environment. Opening up to humor can take the mind down new paths to ideas that may not have ever come to light had it not been for a good laugh.

Non-creative thinkers or “adaptors” see creative thinkers as not being logical,^{xi} because creative thinkers process information in a nonlinear manner. In the adaptor’s eyes, the creative thinker’s thought processes jump around too much and too fast; hence, they may be seen as flaky, temperamental, sloppy with details, or insensitive to others. On the other hand, creative thinkers may also be seen as being indifferent to conventions and rules, or as having little respect for the established organizational customs. On the other hand, creative thinkers or “innovators” see adaptors as being precise, reliable, efficient, and conformist.^{xii} Adaptors can be highly accurate for long periods of time: they do not challenge the organizational rules and are vulnerable to the social and professional pressures of authority.^{xiii}

Creative people can differ dramatically from each other. They span the gamut of personalities and thinking styles, but generally they are willing to take risks, to be open to ridicule, and to be criticized for their ideas and their perseverance in working beyond that criticism. Creative thinkers tend to take responsibility for their actions and see failure as a way to define and refine an idea, and take it to a new and higher level. Creative thinkers ask, “Why do things work the way they do?” They are receptive to all forms and sources of information without biases and are tolerant of ambiguity, loose ends, or unanswered questions. Michael Kirton notes that organizations need both adaptors and innovators to function and that one style is not superior to the other. Both styles have their pluses and minuses, and both need to be

aware that there are extremes in each style of thinking.^{xiv}

In general, when faced with a problem, people focus only on what they know about the situation and try to solve the problem with the limited knowledge base they have. With creative thinking or creative problem solving, individuals need to use the complete knowledge pool, including all previous situations with new and different solutions to them. Successful problem solvers look at each problem as a new and different experience.

CRITICAL THINKING VS. CREATIVE THINKING

Critical and creative thinking are not the same thought process, although they have similar characteristics. They compliment each other. The differences between the two are not clearly defined in the library literature. Loosely defined: critical thinking is judging the quality or relevance of any thing or thought to your own personal standard. It deals with a set of known quantities or qualities of knowledge^{xv}. Creative thinking is the process of modifying ideas from an existing knowledge base with the ability to form or bring forth a new thought by using imagination and intellect. Critical thinking is a logical and judgment based way of making decisions. Creative thinking is an abstract way that produces an illogical leap or inspiration to the next level when critical thinking comes to an impasse. The fundamental difference between the two is that creative thinking poses “what if . . .” types of questions, whereas critical thinking poses “if . . . then” type questions to gain insight into whatever situation or problem being dealt with and how to solve it.

Critical thinking is performed by using these five highly individual factors: disposition, an established set of criteria, the analysis of arguments, reasoning skills, and comparisons of the

choices. Creative thinking goes beyond the boundaries of logic for solving problems or creating solutions while using a strategy (disposition), a knowledge pool, and motivations (point-of-view). Creative thinking is stimulated by using the imagination, using humor, or even doing some sort of physical activity.^{xvi} These stimuli act as the vehicle for the mind to create new ideas from unlikely places and putting these bits of ideas together in different or unorthodox ways to create any number of possible alternatives for a solution. Applying these two thinking styles together will create a powerful new avenue in solving future library related problems.

CREATIVE THINKING FOR LIBRARIANS

Librarians need to transcend the normal boundaries of normal day-to-day thinking habits. They need to step back to get an overall picture of the environment around them and to see exactly where everything is, where everyone is within the organization, and how the environment affects the library patron. People are generally too focused on how changes in the workplace affect them as an individual and forget about looking at how the work environment affects the institution as a whole and the patrons served. Understanding how solutions affect the entire organization may give the workforce a new or different view about how they can change the part in which they work. If each person within the organization did this, the system may function more efficiently, eventually benefitting the library organization and giving the patrons better and more efficient service.

The External Workplace

The vast majority of students academic libraries encounter are right out of high school. Their previous educational experiences will dictate how they react to a totally different educational environment. Currently the educational dogma in many elementary and secondary schools today is to regurgitate information back to the teacher. This deters the imagination and creativity in students, and, as they progress through grade school and high school, these thought processes usually end up being totally forgotten and abandoned as a way of learning.^{xvii xviii xix} Secondary school students are not taught how to take a risk when asking questions of the teacher during class. The fear of failure, ridicule and peer pressure can be enormous, because it may be out of the ordinary to question what the teacher is teaching. The size of classes and the cost of educating students in schools encourages administrators and teachers to apply impersonal solutions that ignore the needs of the individual.^{xx} Educational institutions are forcing individuals into a common mold that conforms, restricts, and hardens a students thinking style into a concrete form that will be hard to change. Ultimately, students end up not knowing how to take an educated risk or how to think on their own. The fear of not providing a correct answer in the classroom eventually turns into a fear of not being able to answer questions in the workplace^{xxi}.

Librarians can demonstrate to new students entering the academe world, the different ways of thinking creatively. One way to illustrate creativity is by using the divergent-convergent thinking process and applying it to help patrons search the World Wide Web or help students and faculty perform online literature searches. Librarians can promote divergent thinking by prompting patrons to come up with other terms or phrases to improve or refine their search results. Applying this type of thinking process to retrieve information may be new or different

to them.

The Internal Workplace

For someone to use and apply creative problem solving in the workplace, the work atmosphere should accept this style of thinking. Everyone should keep an open mind to any and all idea contributions from any group or individual effort. There also should be free and honest give-and-take discussions about any and all ideas no matter how wild they may seem when creating new programs, solving problems, or altering a process. Overall, creative thinking needs to be somewhat autonomous in the workplace. Creative thinking should, by no means, be left to its own devices, or micro-managed.

Hierarchical systems of management can stifle the creative process in an organization or an individual.^{xxii} To be free to think creatively means not having to rely too much on authority or to bend to the pressures or opinions of others. Individuals in a large organization may tend to be less motivated to share any ideas because of possible turf issues, intimidation, or feelings of anonymity that may ultimately result in a loss of individuality.^{xxiii} Many people think so little of their own abilities and ideas that they are more willing to accept the views and opinions of others. While non-creative thinkers see failure as a reason to stop or quit, creative thinkers see failure as one more step in the process towards success.

Librarians have the skills to question and investigate, as part of their everyday job. They should redirect this questioning ability toward the internal library workplace. When trying to resolve an internal library process or function, one should start by asking these and other questions. Is there a better or different way of doing this task or solving this problem? What is

the real problem here? Why does the problem need to be solved? Is there more to it than meets the eye? Librarians need to find out the causes of the problem first and then ask the same set of questions again because identifying the problem is sometimes more important than solving the problem itself.

Creative solutions to problems must come from the knowledge pool versed in a wide variety of subjects. The divergent thinking process brings about a list of probable solutions for a problem. These solutions will emerge from collective individual knowledge pools through interactions and conversations with other people knowledgeable about the problem. Convergent thinking takes each new idea and simulates as many possible outcomes in the mind as possible. Problem solvers express the best of those possible outcomes from this process to a colleague, or solicit as many different sources of feedback on those solutions. Many ideas will need to be tried, and abandoned before the best set of solutions emerges. In the early stages of this type of creative thinking process, we, as librarians, need to fail early and fail often.^{xxiv} This lets the best solutions rise to the top.

How can creativity be safeguarded and encouraged in the workplace? As individual users of creative thinking, they should be aware of the biases that can be encountered. Nay-sayers can be cynical, sarcastic, argumentative, intolerant, and negative to new ideas that may make them feel uncomfortable. They may not like the idea at first, but, as they become more exposed to the idea, they may be more willing to accept it as an alternative way of doing things. Mark Twain said, "A man with a new idea is a crank until the idea succeeds."^{xxv} Nay-sayers may be annoying but the criticism they provide can be helpful. It is useful to bounce their remarks back to them by asking why they think the proposed idea will not work or, what

happened when that solution was tried before? How was it done? Nay-sayers can be a helpful link in the creative chain in progressing toward an overall workable solution. Go outside the organization for input about ideas and solutions is important so as to get different observation from others not directly affected by the outcome is always useful for gaining a fuller understand of any situation or problem.

An individual does not have to know everything in order to make a creative contribution. Certain questions, if approached honestly, can increase and focus individual creativity:

- Do you accept what you have been told about the problem, or, do you redefine it? Are you looking for things that others may not see?
- Can a process be put together in an odd or different way than others would?
- What is the difference between a good and bad idea?
- Do you accept any and all ideas from any and all sources?
- Do you persevere through obstacles?
- Can any and all assumptions associated with the problem be removed?
- Can you create an environment that encourages creativity? ^{xxvi}
- Do you have a conceptual view of things?
- Do you always ask the questions “why?” and “what if?”
- What is your intuition telling you about the problem or situation?
- Do you ask questions that will help stimulate your internal thought process?

CREATIVE THINKING AND LIBRARY ORGANIZATIONAL CULTURE

The efforts of institutions to regenerate or restructure themselves using management tools

like TQM and CQI into a form that will satisfy the current technological, and ever-growing information expectations for instant information of the patron are the main reasons libraries need to change today. But these restructuring efforts are a prime reason for the decline in patron satisfaction.^{xxvii} A catch-22 situation. Patron expectations and attitudes of what they hope to obtain when they come to the library need to be understood. Patrons expect or assume that they will get the inter-library loan in a day or two or believe that the article they want is available online in full-text. These situations are becoming more frequently observed by librarians now that so much is available as an online service. Patrons need to be educated about the realities and limitations of the library's resources from the start. Librarians need to be attentive and understanding towards the patrons perceived expectations and need to create a trusting and confident atmosphere without losing the trust of the patron when the realization comes that they can not receive the material as fast as they thought. All libraries need to meet these challenges.

The relationship between culture and creativity is crucial to how the institution will cope, change, or survive any transition. Cultural attitudes within an organization determine how free, fast, and effective creativity will work. This in large part is influenced by those with the power to bring about change. Changes in organizational culture need to be instituted from top level management which then encourage all parts of the organization to begin the process. The culture of an organization that encourages, satisfies, and has a high job satisfaction rate among its workers is an organization that is operated by managers who involve subordinates in the decision making process.^{xxviii} Innovation and creativity are key elements if libraries are to enjoy any forward progress. The larger the organization in both size and budget, the greater the bureaucracy and conformity and the slower the ability for the goals and tasks to be

accomplished.^{xxix} Large organizations need a multitude of people to execute the numerous daily functions of the library. Smaller organizations have fewer people to execute the same number of functions. In general, the smaller organizations can implement creative solutions faster than larger organizations. Nonetheless, institutions of every size must be receptive to creative thinking in the workplace. Administrators should be willing to empower and communicate with the staff either as a whole or by departments if creative thinking is to have any effect in a library's culture.

Institutional Culture

Christine Kogberg and Leonard Chusmir define organizational culture “as a system of shared values and beliefs that produce norms of behavior and establish an organizational way of life. It shapes behavior by conveying a sense of identity to workers, . . . and gives recognized and accepted premises for decision making. . . .”^{xxx} Academic, public, and corporate libraries also fit into this cultural definition.

Academic libraries focus on education. Public libraries focus on serving the general public's information needs. Special libraries provide highly specialized subject specific information for a very focused clientele. However, the basic function of all three types of libraries is identical: To provide needed information to their patrons. The cultural difference lies with the primary mission and goals that make each type different from the other. These cultural differences have a strong impact on how creativity is perceived, and whether or not it will be accepted and used in the workplace.

Karl Albrecht's list helps describe how to determine what type of culture a library has:

- Authority: is it formal or informal;
- Values: the beliefs and values of the organization;
- Norms: standards of behavior and expectations;
- Rewards: benefits of that good behavior; and
- Sanctions: results from unacceptable behavior.^{xxxii}

He also describes the four aspects for evaluating the health of an organization:

- Alienation: the feeling of separation from the organization;
- Conflict: the feeling of cross purpose between departments;
- Despair: how much feeling of discouragement or futility; and
- Mediocrity: how much feeling of “just going through the motions” low morale is

there.^{xxxii} The larger the library, the more specific the job task per staff member will be. The smaller the library, the more multi-skilled the staff will probably be. The attitude of administrators will also have an impact on how staff react to change and creative thinking input. The size of the library will dictate how the staff function overall.

Empowerment

Empowerment is the action of giving or delegating authority, in this case authority to others in the library. Kirtland Peterson says that, “empowerment does not mean that leadership abdicates authority and responsibility.” All levels of an institution must be empowered within areas of primary responsibility. “Empowerment does not mean everybody can do whatever they like.” The rationale behind empowering employees is to give patrons the best possible service. This rationale provides some focus for staff so they can all move toward the same goals. The free

flow of communications is essential for information and ideas to evolve into solutions for problems that have remained unsolved. Regardless of where the problem originated or where it currently resides an empowered staff can solve them. And, finally “empowerment does not mean that there are no concrete roles or responsibilities.”^{xxxiii} Everyone’s roles and responsibilities become more flexible in an empowered environment.

Empowerment takes away the fear of failure or retribution by supervisors. This freedom of expression enables staff to think out loud. All those ideas that have been stored away in the back of people’s minds will come out. Encouragement and motivation of employees are key factors and must be set as an example by the top administrators before the staff will feel comfortable. One example to encourage the free-flow of ideas is to have a regularly scheduled brown-bag lunch for administrators and staff to meet jointly and discuss a particular problem or situation in a relaxed, pressure free atmosphere. The seeds of empowerment and the influx of creative ideas will be set in motion. There must be a commitment by all members of the organization for a successful empowerment change to be employed. Administrators, as well as staff, must be open, fair, and up-front when discussing new and different ideas.

Empowerment is a cultural issue that each organization must define for itself. What empowerment does for one library will not necessarily work for another library. Soliciting input from all levels of the organization enables everyone to determine what empowerment means in that specific organization. This first step allows the workforce to freely submit new ideas. Empowerment is about multi-skilled people performing more than one role competently. The workforce is changing and narrowly defined job roles are becoming remnants of a past when people did one job and only one job.

Multiskilling^{xxxiv} the staffs of large libraries is one way to provide an opportunity to communicate among departments. Workers can better understand how tasks in other areas of the workplace are performed. Multiskilling will help staff appreciate their own job more because they will have a better understanding about where exactly their tasks fit into the library organization and structure. Multiskilling can bring about an appreciation and respect of co-worker's duties, which can provide insight and generate new ideas for solving or alleviating short- term or long-standing problems. If the staff is enabled and empowered to think in creative ways, the library culture changes and moves forward.

When a library organization is empowered, it has fundamentally changed its culture. The size, type, administration, and geographic location are all factors of what makes a library culture unique and will dictate how quickly changes are assimilated into that culture. The changes will not occur in one day or a week. Mistakes will be made and failures will occur. Dealing with the temporary setbacks of change will occur and everyone must get comfortable with the new culture. Organizational change follows the same lines as the individual creative thinking process. New ideas will undoubtedly result in some failures and mistakes along the way when a new idea is implemented. After the selected solution has refined and then put to use, the work force will eventually accept it. The grapevine and the rumor mills will be running at full tilt because of some fear-based reactions from employees. Not everyone is going to like or understand the new process. Communication is vital to insuring that everyone is at the same level of understanding of the solution.

FINAL REMARKS ON CREATIVITY

Everyone has some or all the traits needed to be creative. Coordinating and developing the different aspects of creative thinking is the difficult part. Creative thinking comes from inspiration, a desire to learn, know, and see an idea through to its conclusion using imagination and curiosity. Creative thinkers possess high levels of self-confidence, ambition, perseverance, and motivation. They are not afraid to take risks or make a mistake.^{xxxv} Some individuals perceive mistakes as an ending point in the solving of problems. Creative thinkers use mistakes as part of the learning process that carries them one step closer to success.

Using brainstorming techniques help to circumvent premature evaluation or the automatic reflex of putting new ideas into predefined categories. Changing this behavioral habit will allow new ideas to be fully assessed and appreciated in an unbiased mental environment. Early in life we are told not to question authority and to follow the rules; but in order for creativity to exist, a constant reevaluation of the rules is necessary.^{xxxvi}

Empowering an organization's staff to become creative thinkers can greatly alter a library's culture. Success in implementing this change will hinge on the current culture of the organization, which is often determined by those in a position of power. An organization's cultural environment is defined by the collective organization's accepted behaviors and attitudes.^{xxxvii}

Culture needs to evolve and grow or it will stagnate and die. Do not let the organization slip past its zenith. If employees reminisce too much about "the good old days" then chances are that organizational culture may be in trouble. Bringing life back to the library staff is not an easy process. Empowering the staff and discovering their creative thinking skills is the key. Look for creativity and use creative thinking processes in every aspect of the organization.

Robert Kennedy said. “Some men look at what is and ask why? I look at what is not and ask why not.” Always look for the unseen possibilities.

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xxxiv. Kirtland C. Peterson, “A Culture of Empowerment,” *Executive Excellence* 10 (February 1993): 13-14.

xxxv. “Multiskilling means that a given individual possesses more than one skill” Lazear, Edward, “*Lecture 7 - The Job, Authority and Responsibility.*” H505, Spring 1998, Stanford University. Available: <http://www.geneseo.edu/~stone/personnel/lec7.htm>. (Accessed 30 April 1999.)

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xxxvii. Glover, *Handbook of Creativity*, p.240.

xxxviii. Ellen J. Wallach, “Individuals and Organizations: The Cultural Match,” *Training and Development Journal*, 37 (February 1983): 29