



From the Ladder to the Matrix: Moving to Self-Directed, Cross-Functional Work Teams

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I. Abstract

Self-directed teams are responsible for the "whole" work process or segment that delivers a product or service to an internal or external customer. They are responsible not only for getting work done, but also for managing themselves. To varying degrees, team members work together to improve their operations and handle day-to-day problems. Although self-directed teams demonstrate classic teamwork, they're much more than simply a collection of good team players. For one thing, they have more resources at their command; a wider-range of cross-functional skills within the team itself, much greater decision-making authority and better access to the information they need for making sound decisions.

The Information Technology Division at the University of Michigan is beginning to explore self-directed work teams. One group of fifteen employees is in the early stages of organizing itself into eleven cross-functional teams. The Departmental Data Networking (DDN) group grew out of a larger Network Systems reorganization. Management saw a natural opportunity to formalize what were essentially three independent work teams that supported AppleTalk, Banyan VINES, and Novell Netware, the three major LAN-based technologies used on campus.

As the reorganization progressed, staff members began to

highlight existing tension between these groups such as competition for resources, concerns about being pigeon-holed, and worry that the organization wasn't positioning itself well to address interoperability issues and future networking trends. Staff members provided management with an alternate plan that consisted of a matrix of five technology-based project teams - AppleTalk, IP, Netware, Remote Access, VINES - and six functional teams Consulting and Troubleshooting, Departmental Analysis and Planning, Marketing, Network Management, Product Evaluation, and Training. Staff members generally serve on four teams, which means they gain knowledge and have access to expertise about more than one technology, and that functional knowledge is shared among teams. Additionally, staff members meet regularly as the DDN to determine priorities and to set the direction for overall team formation.

The process of implementing self-direct teams is complex and can't be done overnight. Some say a full-shift to team self-management can take as long as five years. This paper will look at some of our early issues - what will the DDN look like, how will we get along, how do we make decisions, how do we get all the work done, what do we do about breadth versus depth, what do we have control over now versus what will come later, evaluate our progress, and highlight some of the training and resources we have developed.

II. Introduction

"The management era ended for America around 1970." -

Robert Reich

Perhaps it's time to go forward by taking an organization back; not just to go back to the good old days, but to use an approach that gives responsibility to the people who know what to do at their level.

At the University of Michigan (U-M), Michael McGill, Director of Network Systems, committed himself to changing the Departmental Data Network Group (DDN) into self-directed work teams. We began about six months ago. Our goal was to implement self-directed work teams by July 1, 1993. This paper tells the story of that process. We have tried to document attempts to implement teams

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throughout the DDN's structure, focusing on what we have learned to date. We present information on some of the documents and tools we developed, structural changes that evolved, changes on staff attitudes and behaviors and the lessons learned from mistakes. But let's begin at the beginning with some history.

III. History

A major goal at U-M is to link academic excellence and create a knowledgeable and skilled workforce. It is expected that efforts in this area will not be gender or race-related from a University-wide perspective, nor will they be considered peripheral to the larger life of the University. Demographic projections for the next decade indicate that a significant portion of the workforce will be women and people of color and there will be a decrease in student enrollment. The need to rely on women and people of color to meet employment and service requirements have important implications. U-M's ability to recruit students and strengthen a workforce of qualified employees at all levels will be even more tightly linked to its' ability to provide quality services and programs.

In 1985, a new organization came into being at the University of Michigan - the Information Technology Division (ITD). This was a reorganization move which brought all units responsible for providing computing and networking services into one unit. Over the past four years, ITD has been a leader on campus by undertaking two major initiatives to help prepare for the 21st century. There are two initiatives - Managing Diversity and Total Quality Management - that are at the heart of making an easier transition to self-directed teams at Network Systems.

R. Roosevelt Thomas, Secretary of Morehouse College in Atlanta, Georgia and president of the American Institute for Managing Diversity writes in his book *Beyond Race and Gender*: "What is required is a new way of thinking about diversity, not as an us/them kind of problem to be solved but as a resource to be managed. Managing diversity is a comprehensive managerial process for developing an environment that works for all employees." Total Quality Management (TQM), one of the first employee-involvement programs, was developed by W. Edwards Deming. Dr. Deming formed many of his theories during World War II when he taught industries to use statistical methods to improve military production. TQM places a heavy emphasis on the equality of individuals working in teams, and helps create participation across an organization in planning and implementing continuous improvement.

Customers are given top priority, and team members study and constantly improve work processes to exceed customer expectations. Everyone in the organization learns to use a scientific approach to identify problems, solve them creatively, and make continual improvements to the process itself.

We have used Managing Diversity, Total Quality Management, and Self-Directed Work Teams as a basis for moving beyond traditional approaches to management. These initiatives, although different, have four common aspects:

- success depends on their ability to empower the work force;
- adaptation is a mutual process between management and an individual;
- fundamental changes are made in the way work gets done; and
- employees intervene and reshape an organization's culture.

IV. The Decision to Move to Self-Directed Work Teams

For several years, ITD has struggled to meet challenges that have threatened its' ability to provide quality services. One major goal has been to provide savings that are not only fiscal in nature, but also those that will provide competitive advantages to customers. The collective pressures of meeting customer expectations, fiscal restraint, competitive computing and networking technologies has compelled ITD to look to form new relationships and adopt new perspectives to remain viable in a changing environment.

Our decision to move to self-directed work teams was based on several key factors:

- The University of Michigan has traditionally embraced a decentralized organizational structure. Academic and administrative departments value their autonomy and independence;
- There was an emerging pattern throughout our division to organize in cross-functional teams;
- Staff members in Network Systems felt it was important to organize in a way that mirrored the complex and interoperable nature of computing and networking technologies;

- We recognized that there was a need to restructure our organizational processes to improve customer service and prevent problems;
- We felt it was extremely important to implement a long-term systematic approach to sustain the improvement necessary for survival;
- Management desired to foster additional gains made by implementing TQM and diversity initiatives.

On a more personal level, Network Systems was undergoing a reorganization; new staff members from different units were coming into the work group, as well as, newly hired staff. A core group in the DDN had a history of working in teams, with little direct supervision, to address specific problems. Some parts of Network Systems were characterized by low worker morale, poor internal communication, and poor project coordination. Our image among many of our customers was somewhat negative; services were viewed as being too expensive and delivered with little concern for customer needs. We wanted to create a structure that would enable staff members to address problems and continue to take advantage of people's cross-functional skills and experiences.

The two big questions are: How do we continue to help staff members feel empowered in our organization and have it work naturally for them? Second, how we do enable staff members to practice the behavior necessary for organizational competitiveness? As an answer to both of these questions, Self-Directed Work Teams (SDWT) seemed to fit the bill.

What follows are not "step-by-step" instructions for implementing and using self-directed work teams; our efforts are still in an embryonic state. Rather, this is an exploration of the concept of self-directed teams, our plans for implementation, and an examination of some complexities and benefits.

V. Getting Started with Self-Directed Work Teams

Coal miners in South Yorkshire, England, and their mentors doing research from the Tavistock Institute, invented the first modern self-directed team in 1949. Self-directed work teams are groups of people empowered to manage themselves on a daily basis. Typically, these teams not only handle their job functions but also plan, control and schedule work activities, make production and service-related decisions, and share leadership responsibilities. Teams are given ownership of a product or

service and team members take responsibility for the quality of their products or services. Self-directed work teams build on the components of TQM and Managing Diversity. Team members are actively involved in the process of continuous improvement.

The process of moving to self-directed work teams has four distinct phases: Vision, Design, Implementation and Monitoring.

Creating our Vision involved an extensive brainstorming and consensus process whereby we attempted to define not only what we wanted our work teams to be, but what the goals and philosophy of our part of the organization were. We referred to the vision (mission) statement for Network Systems as outlined by Mike McGill, and attempted to define where our group fit in that picture. As part of the process we also came to some agreement about group norms, values, and where the philosophical pitfalls lay.

Designing the move involved looking at the literature concerning self-directed teams, researching what operational, emotional, and cognitive changes had to happen to the members of our group to prepare them for self-direction. After research, we began to try to assess where our members were and where they needed to go, and what path we should walk with them to get there. As part of the design phase, we both created a long-term plan of implementation and adopted a philosophy of "just-in-time" training whereby we would try to meet current and rising needs with flexibility. Team members and leaders would get the training they needed as the need for the skill appeared on the horizon.

Additionally, we wanted the flexibility to be able to step out of our implementation plan and deal with needs arising from the group process itself, rather than being locked into a single path.

Implementation involved turning the philosophy into real training programs and steps toward operational levels. This implementation plan had to take into account both the current and evolving work loads of our staff and the goals and plans of Mike McGill, who wanted certain operational components of our reorganization completed by July 1. With the help of a trained facilitator and using all our skills as educators (in several diverse fields, including computing training, diversity education, church management, and childbirth education), we were able to create training sessions that included individual values clarification, skill development, and exploration of group norms and expectations. We also found ourselves creating group structures on the fly to answer needs (read:

demands) of the group as they reached certain operational and cognitive levels.

Monitoring is part of the TQM process of continual improvement whereby we come back to goals and objectives to see if we have met our criteria, what further actions need be taken, and what our next steps need to be.

Planning model

We developed a planning approach that closely follows the Hoshin Planning Model used by Hewlett Packard. Our approach involves:

- Researching and understanding the nature of self-directed teams and the kinds of investments and resources that will be required. Considering the cost of lost opportunities from similar investments in other areas of service quality and productivity.
- Assessing the current environment and taking a look at how the organizational culture will affect participation in self-directed work teams. An assessment helped to form the basis for developing a more comprehensive plan. Clarifying a vision of where the organization wants to go in the next few years and tying that vision to solid business activities. Assessing the organization's readiness for and receptivity to self-directed work teams.
- Identifying goals and visible results that will help move an organization toward its vision and exceed customer expectations. Creating an awareness of the need for change and involving key stakeholders. Stating how self-directed teams relate to the organization's visions and why they are necessary for its' continued viability. Seeking out allies and identifying change agents.
- Identifying critical processes that must be delivered to customers in a way that continues to meet their expectations while making a transition to self-directed teams. Examining the organization's principle customers and the services that must be provided to each group.
- Communicating the vision and the values that will drive the mission throughout the organization to help build employee commitment and understanding. Supporting employee participation in self-directed teams by providing the resources to help them grasp and practice the skills of empowerment.
- Providing a structure for monitoring and reviewing progress toward the organization's vision. Identifying prospects for systematic changes in "people" systems like a performance appraisal system. Developing a plan

for institutionalizing those changes and modifying organizational systems and values to support the ways in which teams will work.

VI. Moving from Theory to Reality

We have taken significant steps toward self-directed work teams. But at this point, we cannot point to any one team as a model for complete implementation. Still, it is fair to ask how are we doing it. How are we moving from theory to reality?

Some History of the Division

For several years, Network Systems staff members were organized in a divided and divisive fashion. Two major units existed in the division: the telecommunications staff (UMTel, voice and video services), and the data staff (UMnet, data and networking services). UMTel was organized on a rigidly hierarchical system which included several working groups of represented employees (and the communications structures inherent in that organization); UMnet (and its cousin, Merit/MichNet) was organized on a loose working team concept with a basically flat structure and a correspondingly simple communications flow. Unfortunately, given the merging of technological improvements, functions were duplicated at several levels and turf battles occasionally hindered customer service.

After identifying more than ten organizational requirements, Network Systems staff members proposed a structure based on service function rather than product offering. The major structures in the new Network Systems are Customer Service, Financial and Planning Services, and Engineering and Operations. Folks performing like tasks are now organized into the same larger working group. Functional similarities rather than differences are emphasized.

The DDN, a working group that is composed of several pre-existing teams pulled together under the new structure, found that they were expected to adopt a self-directed work team approach. (This decision was reached not only because of management feeling that this was the correct organizational model for this working group, but also because budget shortages left no money to hire a new manager for the group.) Staff members knew very little about the specifics of these kinds of teams, but believed they offer the potential for significant strategic gains.

The group accepted the challenge.

VII. What Led Us to Choose Self-directed Work Teams

The timing seemed right to try self-directed teams in our own work environment. Network Systems was undergoing a reorganization. New staff members from different units within NS were coming into the work group and others were being hired. Each person brought new areas of expertise and experience. As we began working together, we found ourselves creating ad hoc teams to address specific problems. These teams worked well and efficiently. We were enjoying the new mix of people and the pleasure of addressing long-standing issues. We wanted to create a structure that would allow this to continue.

The core group of existing staff members had a history of working in projects. Staff members were organized by the LAN technology they supported, with some cross-technology cooperation in planning and training. Further, staff members were used to working independently, with little direct supervision.

There was divisional support for this as well. Empowered staff members working closely in the teams was a trend supported in our Division's implementation of Total Quality Management. An extensive team leader training program was in place and many of our staff members had received this useful training. Also, trained facilitators were available for assistance in team development.

Taking the "Self-directed" concept and running with it

Originally, Mike and his management team planned that the DDN teams would organize according to already established teams: Planning, Training, and our three primary LAN technologies: AppleTalk, Netware, and VINES. At this point an existing tension came to the fore. Not all technology projects were seen as equal. One project had a stable clientele and more limited resources. The other two projects were just beginning to expand and new staff members and other resources were being directed toward them. Staff members in the stable project saw the need for cross-training. Their customers needed knowledge from other teams as interoperability would be an increasing concern.

Some staff members who had been reorganized into the group felt their expertise and assignments did not fit the established teams well, leaving them with a sense of being pushed into a niche which did not truly fit.

Further, all staff members thought there could be economies by sharing troubleshooting, marketing, and training efforts. From a staff development viewpoint, everyone wanted the chance to continue to gain more skills, training, and recognition. In March 1993 a volunteer group of staff formed the Organization Development Team (ODT) to offer a counter proposal.

The proposal they came up with was truly cross-functional. They created six functional teams - Consulting and Troubleshooting, Departmental Planning and Analysis, Marketing, Network Management, Product Evaluation, and Training; and five technology projects - AppleTalk, IP, Netware, Remote Access, and VINES. Each of these teams recognized areas of existing staff expertise and recognized efforts that were currently in place. Since there are fifteen staff members in the DDN, everyone would need to serve on several teams. Also, almost everyone would have the opportunity to be a team leader providing the chance for professional growth and development in that arena. Everyone endorsed this plan.

Staff members were polled again. They were asked to define what teams they wanted to be on, what amount of effort they wanted to devote to each team, and which team(s) they would like to lead. The acting manager of the DDN, who is also the NS director, assigned team leaders, and with a couple of adjustments, team leader assignments became stable early on. Team membership took longer to balance out.

July 1 was the target date for completion of the NS reorganization, and Mike McGill wanted the essential structure of the DDN in place by then. He defined this as: team membership would be relatively stable, and every team and project would have a mission statement, measurable focused efforts, and procedures. He wanted the teams and projects to be able to say what their purpose was, what their priorities were, how they were going to go about meeting those priorities, and how they would be able to tell if they were successful. He also wanted the same things at the individual level. Each person in the DDN was to have a work plan that listed measured focused efforts and procedures for meeting them.

The steps we took to accomplish this

Assignments to the DDN as a whole, as teams, and as individuals were developed toward meeting the July 1 goal. The first assignment, due April 1, was for team leaders to write strawman mission statements. This gave everyone a sense of what the teams intended to do and for everyone to make comments. The Manager reviewed and

commented on each of the mission statements. Some of the teams were on target from the beginning. Others took longer, and one, Consulting and Troubleshooting, took intensive negotiation.

One of the first issues was for everyone develop a shared understanding of what the tasks were that needed to be done. At the same time, everyone needed to gain a sense of our interdependencies. Further effort was needed to help some teams clarify their missions.

One of the most useful exercises to help with this clarification was a mutual expectations grid. Each team leader was asked to say what they needed from every other team or project. Then, teams prioritized the list by asking if each expectation or task was truly part of the team's mission. If so, did the team have the resources to accomplish it? For those teams whose missions weren't stable or which were ill-defined, the needs list provided a jumping off point of discussion.

We spent nearly two months negotiating what the teams would be doing.

Consulting and Troubleshooting

The mission of the consulting and troubleshooting team became a particularly hot topic. Confusion and disagreement centered in three areas:

- who would do the consulting and troubleshooting;
- how would the C&T team fit with another DDN ad-hoc team, Single Point of Contact (SPOC), which was charged with coming up with a way for all Network Systems customers to be served by a single telephone interface;
- what needed to be done to support the current state of affair of consulting and troubleshooting residing in the project teams, and how would these efforts be supported.

Some people wanted the C&T to do the troubleshooting for the DDN. They believed that dedicating consulting and troubleshooting to one group of people would give others more time to concentrate on other tasks. Others, particularly those on the C&T, felt that consulting and troubleshooting was so essential to the mission of the entire DDN that everyone needed to do it. They argued that advanced troubleshooting would need to take place in the projects anyway, and that it was unfair to saddle one group of people with all the first-level troubleshooting.

The SPOC was continuing to meet. How the C&T would

operate with the services the SPOC was developing was unclear. Whenever possible, the SPOC wanted to use existing customer service mechanisms. Additionally, the SPOC was tackling the issue of interoperability with other, existing mechanisms in the reorganized Network Systems, and attempting to find a way to use existing resources most efficiently. Two major points of conflict arose: whether an existing phone number and trouble ticketing system should be used or whether a new call-prompting system should be installed; and whether all DDN members should have a rotation on the telephone triage desk.

A compromise for first-level troubleshooting was reached. All troubleshooting would take place in the technology projects for the time being. As more details of the SPOC were worked out, everyone in the DDN would potentially take a rotation. The C&T team would concentrate on providing some of the central services required by the projects such as bringing together a trouble ticket tracking system and an informational database. In the future these two mechanisms might provide the basis for a centralized help desk.

(In reality, the SPOC set off a chain reaction that reached the rest of the Information Technology Division. Several changes in other units prompted a move to explore 24 x 7 consulting and assistance throughout the division. That team is still working and as of this writing the answer is still unclear.)

More compromise

After teams identified their focused efforts and priorities, team leaders were asked to ensure they had adequate staff resources to meet their established goals. This again raised the earlier tension about where staff would concentrate their efforts. Some of the technology projects wanted their members to devote the majority of their time, 90% and above, to the project. This severely limited resources to some of the other teams. Some members felt that placing their major effort in their functional groups rather than their technology projects reflected that all their activities in the tech projects were, in actuality, linked to the functional groups. Some team leaders worried about limited flexibility to take on new tasks.

The compromise of the C&T provided useful understanding about the link between the functional teams and the technology projects. Some of the functional teams see their missions as a coordinating function. For example, Product Evaluation sees very clearly that it should not take on evaluation if some other group in the DDN, ITD, or even the University has already done so. Rather, they see

themselves as an active clearinghouse to make sure the information is widely available, especially to the members of the DDN. Network Management is beginning its work by using existing tools created in the Engineering and Operations group.

As well as clarifying the roles of Consulting and Troubleshooting, Network Management, and Product Evaluation, our current state of affairs sees the previously existing teams Departmental Planning and Analysis, Training, AppleTalk, Netware, and VINES as having become stronger. Part of this is due to increased staff and part due to clarified mission and goals. Marketing and Publications, which combines an infusion of new energy and talent along with a clarified "home" for advocacy and documentation efforts from the projects, is also off and running. Within weeks of organizing, this group found itself working with similar groups in other parts of network systems and ITD, working to reduce redundancies, and bringing new scope to projects already underway.

Remote Access and IP are struggling with having a huge job to do and very limited resources. Remote Access has solved part of its problem by identifying areas of cooperation and coordination with units and people outside the DDN. To some extent, IP has done the same, but has also needed to request an additional team member.

Cognitive and Skill-based Training

True to our plan of "just in time training," we also developed sessions to teach some badly needed skills and help the group form into a cohesive whole. These exercises, while ostensibly revolving around skills such as consensus decision-making, leadership and personality characteristics, and group procedures, also were designed to help the group become accustomed to each other and become a true team rather than a group of co-located individuals.

Sessions included: consensus training; decision-making styles; the use of the Meyers-Briggs Type Indicator in negotiating work life; and expectations of team leaders and members. Future training and work will include salary programs and work planning skills.

Several times the ODT felt that we needed to change our focus to meet Mike's agenda. The planning team was very concerned with the process of emotional and cognitive change through which the members of the work group needed to move; Mike had an operational agenda that sometimes seemed to conflict with the process we saw as

necessary for optimal emotional adjustment. We learned to negotiate these differences to reach goals and checkoffs in a way that satisfied (or nearly satisfied) everyone's requirements.

How are we going to work together, and what does self-directed really mean?

While Mike was directing us toward meeting our task definition goals, the DDN also pursued questions about what it means to be self-directed, what latitude we have, and how the teams will work cooperatively. This was especially true in the area of budget and resource allocation. Mike was clear and adamant that direct budget control would not be given to the teams for at least the first year. DDN staff members were concerned that if teams negotiated separately with Mike, there wouldn't be a clear picture of priorities and that resource allocation would become a matter of "first come, first served." There was also concern that teams would try to own resources that should be pooled. We worked through many of these concerns by going through a decision matrix grid that identified key decisions and where final authority for those decisions would reside. This allowed us to also talk about how information would be shared within the group.

We began to see many of the decisions as being escalated, that discussions would start out in the teams, and would go to the DDN and/or Mike for resolution if necessary. We also began to create guidelines for publishing information and for making sure that Mike has a broad picture before making a decision. For example, a new travel request form was sent to everyone before the travel budget was created.

Another issue where the team's independent nature came to the fore was in the issue of vacation time. Mike, who comes from a different environment, published a vacation policy requiring at least a week's notice for any time off. His goal was to make sure that users and teams were not left in the lurch by the unexpected absence of a member. Many team members had had the responsibility for their own time management in previous groups, and were used to making decisions about half days, Fridays, and other short and impromptu vacation times on their own. They objected strenuously to what they saw as an imposition on their traditional rights. A compromise was worked out, allowing two days' notice for half- or single-day vacations, and one week's notice for longer stretches.

VIII. Parting Thoughts

Moving out of the planning phase and into operations

On July 1, we operationalized our weekly meetings. This means that the foci of the meetings are status reports from teams, an opportunity to discuss what's going well, what problems are and how others can help. Presumably, resource allocation issues will begin to arise during this time as well.

The first such meeting went very well. Highlights that are likely to continue: A few inter-team problems arose and were taken care of through brief discussion in the meeting and more thorough follow-up afterward. A favorite part of the meeting was information from outside the DDN, and more time in the agenda was allotted for this. A proposal for status reports was presented. There is agreement that we want to have some kind of written status that can be shared and used for a report that may be shared with other units. On the other hand, there is strong feeling that we want the interactive dialog and synergy that our meeting round robin provides.

What We Learned

Most DDN staff members were excited and somewhat cautious about the potential of self-directed teams. As word spread to other parts of the organization, we perceived skepticism about work teams. Self-directed work teams were seen as another management fad. We had to find a way to get even the most hard-boiled skeptics sufficiently involved in the process to allow team formation processes to take over.

It was important to understand the organizational culture and how change had been accomplished in the past. We adopted a non-traditional view of the problem to preserve the diversity of needs within the group and move towards a concept that was largely untried in our environment.

In the past, management efforts have concentrated on "fixing" employees to enable them to blend into the culture and structure of the organization. We are making a conscious effort to shift the burden of change from the employee to the organization.

At a deeper level, we had to demonstrate a capability to understand and appreciate the changes that would be required at an individual and institutional level. We learned to recognize the interrelationships between

ongoing initiatives and keep them distinct to lessen the risk of diminishing the work team effort by more mature initiatives. Many employees have begun to see that Managing Diversity, Total Quality Management, and Self-Directed Work Teams are part of a comprehensive effort to enhance organizational performance.

What We Would Have Done Differently

We would have spent more time conducting research on the organization's culture and systems to determine if it was supportive and ready for self-directed work teams. The performance of a cultural audit doesn't have to be time-consuming and complex; but, it is an essential first step in identifying cultural or human factors that might hinder or help the SDWT process.

We would have involved "change agents" earlier during the initial planning stage and prepared them for the magnitude of changes demanded by the shift to self-directed teams. Their buy-in, consistency and motivation are critical to successful implementation.

Lack of early involvement of change agents in thinking through the issues of converting to teams, the possible impact on employees and business activities has resulted in a series of stop-and-go approaches.

We would have spent more time emphasizing the education of other parts of Network Systems about how the DDN thinks about things rather than the ways in which things will get done. We would have created opportunities for education rather than just training. It became important not only to build specific skills, which training does, but to change mindsets. Moving to self-directed teams requires a change in employee mindsets and that takes ongoing education. We would have provided forums for conflict earlier in the process of implementing self-directed teams. At times, conflict has been a by-product of the change process and we did not have appropriate mechanisms in place to address them.

As we move forward, it is important to make clear that the effective operation of self-directed teams becomes a goal for the entire organization and a criterion by which individuals are evaluated and held accountable.

IX. What's Next?

"One finds one's way only by taking it."

Sertillanges

Obviously, the next few months are the testing ground for our theories and our ability to work in this model. The summer has given us a brief respite to begin to work together; the onslaught of the school year will provide us with a more rigorous environment in which to prove our ability to provide the services we say we offer.

ODT members continue to look into current research on SDWT, to forestall or foresee problems that may arise in the next few months. The entire working group has internalized the idea that moving to SDWT is a process, not a leap, and that as we learn and grow, more corporate responsibilities, such as budget management and hiring, will fall to our teams and our tested decision-making processes.

One continuing problem is that of staffing. Before our work group was organized, and while the necessarily awkward organization period was in its most difficult phase, several members of the team had already begun to seek employment elsewhere. Several of those folks have actually accepted other jobs and moved on, leaving holes in the team leadership structure and in the resources available to the group. At least one staff member has left because of a basic philosophical disagreement with the concept of self-directed teams.

We must find a way to plug this drain on our resources, to hire new staff into the teams without destroying the cohesiveness that is developing, and to increase staff satisfaction with the process and their work lives. Additionally, because of the state budget situation, additional staffing beyond our original fifteen allotted spaces may be difficult to come by, even though we can document a need for increased staff resources to attack some current problems and fill customer needs.

X. Training Resources and Tools, Bibliography

We have developed a number of training materials, decision tools, and management aids in the process of planning and implementing this change. We have also collected an extensive bibliography of articles and books. Due to space considerations, we cannot possibly describe or include them here. We will be happy to share, however. Please send email to any of the authors for more information or copies of our resources.

XI. Conclusions

Self-directed work teams are one of the most effective ways to combat the serious draining and debilitating effect of the current resource crunch most university computing groups find themselves in during the 90's. These teams allow for cross-fertilization of ideas and expertise while taking advantage of a lower cost for management and administration. The changeover to self-directed work teams is, in itself, not a cost-free process. The planning and guidance of the change, the lost work time while team formation and norming occur, and the hesitations that happen as teams learn their new roles are all costly in terms of staff payroll dollars. But this initial outlay in time and effort can be recouped easily as teams move into an empowered and educated operations mode.

Self-directed teams not only provide for better use of organizational resources, but provide a reward and stimulus for personal growth and satisfaction that no other organizational reward, including bonuses and promotions, can provide. Staff members who participate in self-directed work teams grow as leaders, learn more about responsible team membership, and learn to value their own expertise to the work group, to the customer, and to the institution at large.

The combination of benefits to the institution and to the individual workers makes self-directed work teams worth consideration in an age of restructuring, downsizing, and increased employee involvement in customer satisfaction.

"With regard to excellence, it is not enough to know, but we must try to have and use it."

Aristotle