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ABSTRACT

In order for an educational institution to utilize Total Quality Management as a tool for improving effectiveness, the culture of the college must foster a belief in change and a focus on the customer. A disciplined approach to planning and a commitment to the concept of Continuous Improvement (CI) are also required. Concerning acceptance of change, colleges must recognize that just as the needs of students change, so too must the college change to meet those needs. With respect to a focus on clients, colleges must recognize that failing to focus on customers can put a college out of business. Lacking competition for clients, geographically isolated colleges must make a special effort to focus on customer needs. A disciplined approach to planning includes developing a vision of the college covering a 3- to 5-year period. Following development of a vision, a planning group can begin formulating a plan for the college. This group should develop a concise mission statement, a set of institutional values, and a list of critical processes which the college utilizes to achieve its purpose. Using one of seven management planning tools, the critical processes can then be reduced to "breakthrough" objectives which the institution will include as part of the college plan. Finally, colleges must adapt the CI concept, which assumes that no matter how well a college is meeting the needs of its customers, there is always room for improvement. Extensive flow charts, illustrations, and tables are included.

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## Total Quality Management in Higher Education

James B. Rieley

June 23, 1992

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## **Total Quality Management in Higher Education**

James B. Rieley

The Center for Continuous Quality Improvement  
Milwaukee Area Technical College

This paper was presented at the  
Community College Consortium  
Vail, Colorado  
June 23, 1992

In these times of ever-increasing competition, accountability, and reduced financial resources, it is becoming increasingly difficult for institutions of higher learning to be able to effectively meet the needs of their customers. This point has raised the issue of "how does a college become more effective?" The answer can be found in the business and industry community. It is Total Quality Management (TQM) and Continuous Improvement (CI).

It is important to note that of all the college moving in this direction, not many are doing it solely due to a realization that TQM and CI can help them become more effective. The driving force in this movement may be directives from state agencies, requirements from accreditation bodies, pressure from government units, as well as shrinking resources and a reduction in customers. Regardless of reason, before an institution of higher learning can begin to move in this direction, it must be willing to make a commitment. This commitment is more than just handing out books by Dr. Deming or teaching statistical process control classes; it is a commitment to begin a journey that has no end, a commitment to the customers, a commitment to the future of the institution. This commitment includes four items: acceptance that change is required in the culture of the college; a belief that the focus of the college must be on the customer; a disciplined approach to planning; and a priority on Continuous Improvement.

No longer can educational institutions just "get by" because they have had a long history. This list of organizations who have fallen by the wayside because they were not effective in meeting the needs of their customers is long. In these times of increased competition, educational institutions must be prepared to go head-to-head with in-house training programs by business and industry, consultants, and private "educational" organizations. The needs of customers are changing, and so must the educational institutions if they wish to compete for them.

### **Acceptance that change is required.**

Many institutions claim to want to move towards a TQM environment, but are unwilling to make this move at the expense of changing the entire culture of the college. This is a problem that has its roots firmly embedded in a belief that the college has done well for many years, so why should anyone want to change it. This is a typical "status-quo" institution, one in which the philosophy is, "if it ain't broken, don't fix it". Unfortunately, this philosophy runs counter to the very idea of institutional effectiveness, for effectiveness means meeting and exceeding the needs of the customers of the college. The needs of customers change, and so must the college if it is to be able to meet them. It will not be a plus to be the best at what your institution does if you do not have any customers for your service. This is not an unreasonable scenario. Without adapting to the technology advances we have seen in this country in the past 30 years, we would all still be teaching typing on manual typewriters.

Competition for customers is increasing, even in the field of education. To attract the customers needed to keep an educational institution in business, it must figure out ways to meet the needs of those customers.

### **Focus on the customer.**

The concept of customer focus is known to be the one way for an organization to stay in business. This is one of those "common-sense" issues. Business and industry have proved this time and time again. If a company does not look to the needs of its customers, it will soon not have any customers, and then it will be on its way out of business. This scenario can hold true for educational institutions as well. The only difference is that in many situations, the college in a given geographic area may have no direct competition. When this happens, it can be difficult for the college to keep the priority on the customer focus.

Key to having a customer focus is the ability to identify who the customers of a college are. The easiest definition of a customer is the one who receives the product or service output of the organization. The one who provides the product or service is the vendor. Contrary to what we would all like to believe, there are no teachers, administrators, staff, or support personnel; there are only customers and

vendors. When customer identification is brought down to basics, keeping the focus becomes far easier.

### **A disciplined approach to planning.**

No longer can educational institutions just "get by" because they have a long and glorious history. The regulatory demands on colleges and the needs of customers are changing, and so must the institutions. The ability to adapt and be flexible to the customer must revolve around a sound, comprehensive long-range plan for the future. The plan is developed through a process known by a variety of names; Policy Deployment, the Hoshin Planning Process, or more suitably, common sense. The process is a key element in an overall program of Total Quality in education, and uses specific process planning tools.

Planning, to be effective, must be centered on the vision of the college. The vision would normally be developed by the senior management person of the college, and articulated by a group or committee charged with this task. This vision should reflect a picture of what the college would like to look like in the next 3-5 years. The vision becomes the basis for the plan.

Once a vision for the college has been established, the planning group begins the actual process of developing a plan of how to move towards the vision. To do this, it is important to define several things. First, the purpose or mission of the college. Educational institutions have a tendency to write lengthy mission statements, encompassing everything that can be thought of. However, this does not lead to effectiveness; this leads to confusion. The mission statement of a college should be short, concise, but clearly state what the mission is. This can be done in less than 10 words. Examples might include *to provide training and education for employment*, or *to create an environment for life-long learning*. These statements are short, but to the point. This is what a mission statement should be. It does not need to be a shopping list of every agenda item on the college's things to do list. Short, concise, less than 10 words.

Second, the planning group needs to develop a list of the values of the college. These values are what the college is all about, what it believes is important. These values could typically be *quality instruction, meeting the needs of a diverse community, developing a strong economic base, improving the quality of life in the*

*community, life-long learning opportunities, affirmative action and equal opportunities, or providing educational job links to the business community.* These values become part of the overall planning process, for they help give direction to the college.

The next step is to look at the processes the college uses to achieve its purpose. These processes should be limited to only the major or critical processes. This usually results in a list of only 7 or 8 items. The development of the critical processes of the college is done by the same planning group that has been working on the previous components of the planning process, for continuity of the planning process is extremely desirable. When the critical processes are developed, the planning group should then compose a list of who the customers of the college are, as well as the needs of the customers. These lists are composed through the utilization of the affinity process, one of the 7 Management Planning (MP) tools of quality.

With the needs of the customers refined down to 2 or 3 needs per customer group, the relationship between the critical processes and the needs of the customers are then determined through the use of a simple matrix. The output of the matrix will graphically show which process has the greatest effect on meeting all the needs of the customers of the college. The affinity process is then used to determine the strengths and weaknesses of the institution, as well as the opportunities and threats facing it. This output is then analyzed through the use of an interrelationship digraph, another of the 7 MP tools, to determine which item group is the major driver of the outputs. This output is then compared to the output of another tool, a spider chart, a tool used to visually display the current status of the institution. The resulting comparison output then becomes a breakthrough objective for the college.

Breakthroughs are a key element of the process of Policy Deployment. The breakthrough objectives are the items that the college should concentrate on as keys to achieving the purpose of the institution as it moves towards its vision. The breakthrough objectives are broken down into elements that clearly show how they can be achieved, formulating a plan for achievement. This plan centers on what to do in the next 3 to 5 years, followed up by a plan of annual objectives that will help to insure the success of the overall plan. These plans are then deployed to

divisional managers or Deans of the institution for their input through a process known as "catchball". This input is passed back to the planning group for inclusion into, or modification of, the actual plan. This planning process gives the institution a high level of flexibility in adapting to the changing needs of its customers.

### **A priority on Continuous Improvement.**

The concept of Continuous Improvement (CI) seems to cause much concern, usually due to the lack of understanding of what the two words mean together. CI does not mean that an institution is not doing a good job of meeting the needs of its customers; it simply means that the college can strive to do a better job, both now and forever. Regardless if we are the best college in a given area, or the only college; we must work to better meet the needs of our customers.

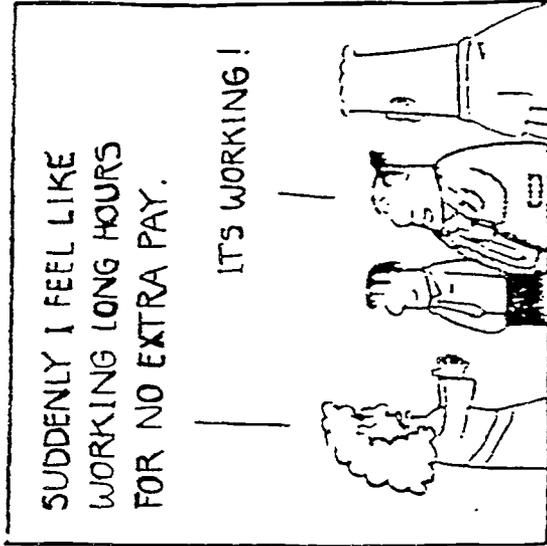
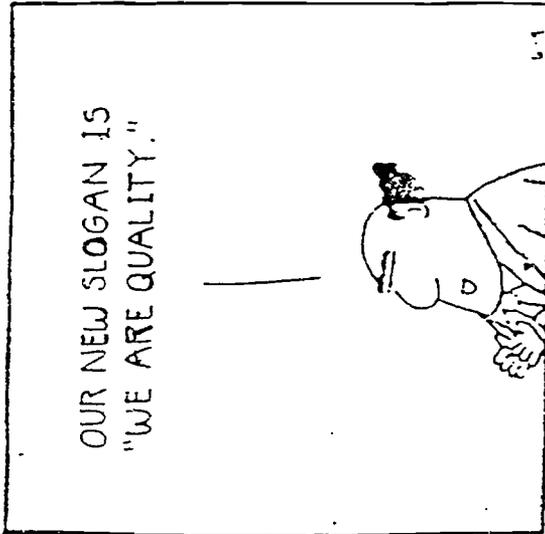
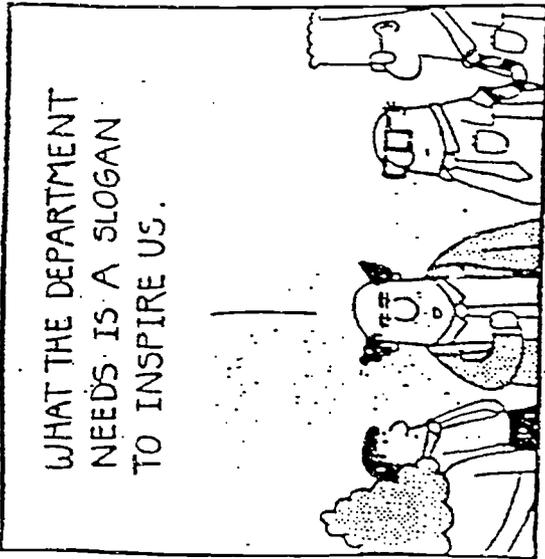
Is all this TQM and CI stuff difficult? You bet! Is it worth the pain? Without a doubt! TQM and CI are the answer to institutional effectiveness. They are the way for colleges to meet the needs of their customers. They are the future for effective education in this country.

*attachment: Overheads used in presentation*

This paper was written and presented at the Community College Consortium, Vail, Colorado on June 23, 1992 by James B. Rieley of The Center for Continuous Quality Improvement at the Milwaukee Area Technical College, Milwaukee, Wisconsin.

Rieley, who has been with The Center since its inception in 1990, previously owned and operated a plastics manufacturing company in southeastern Wisconsin for over 20 years. After selling his company in 1987, he went on to help other businesses learn ways to help insure their ability to stay in business through what we now refer to as TQM.

DILBERT™ by Scott Adams



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# Total Quality Program

A new way of thinking  
New management of a system  
New tools and practices

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# Key Concepts of Total Quality

1. Commitment to Purpose
2. Focus on Customer
3. Quality
4. Systems
5. Scientific Approach
6. Teamwork
7. Respect for people

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# Four Steps to Implement Quality

1. Accept that change is dynamic
2. Create a vision
3. Develop a plan of action
4. Implement fundamental change

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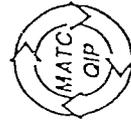
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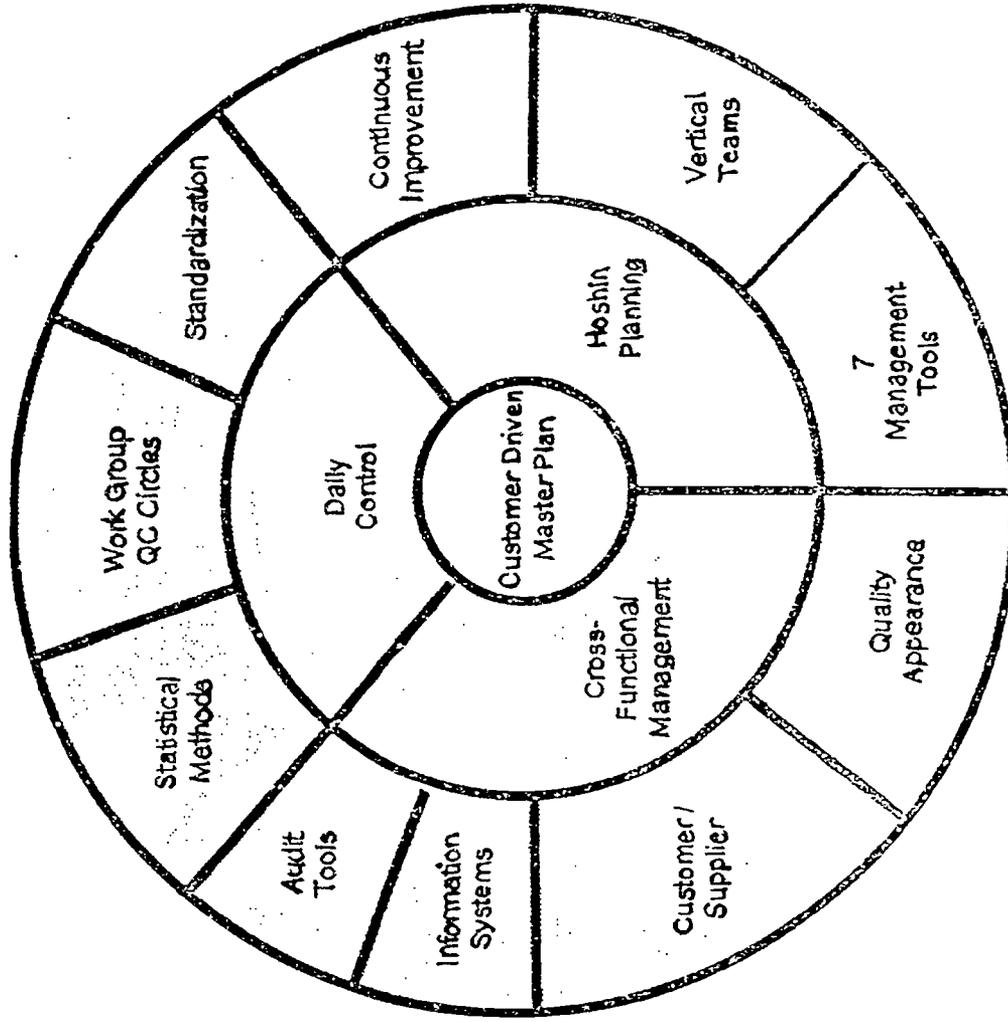
# Pilot Projects

- need to be small
- must have solid foundation
- need to function as a team
- need knowledge and application of tools
- need commitment and support
- need to focus on the process
- must be in alignment with mission

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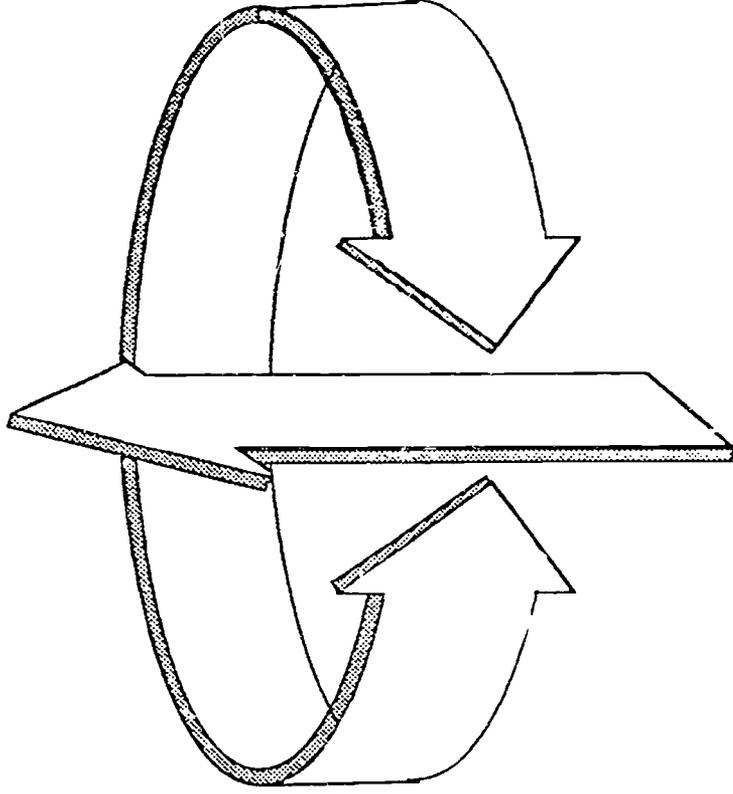
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# Vertical Alignment with Horizontal Coordination

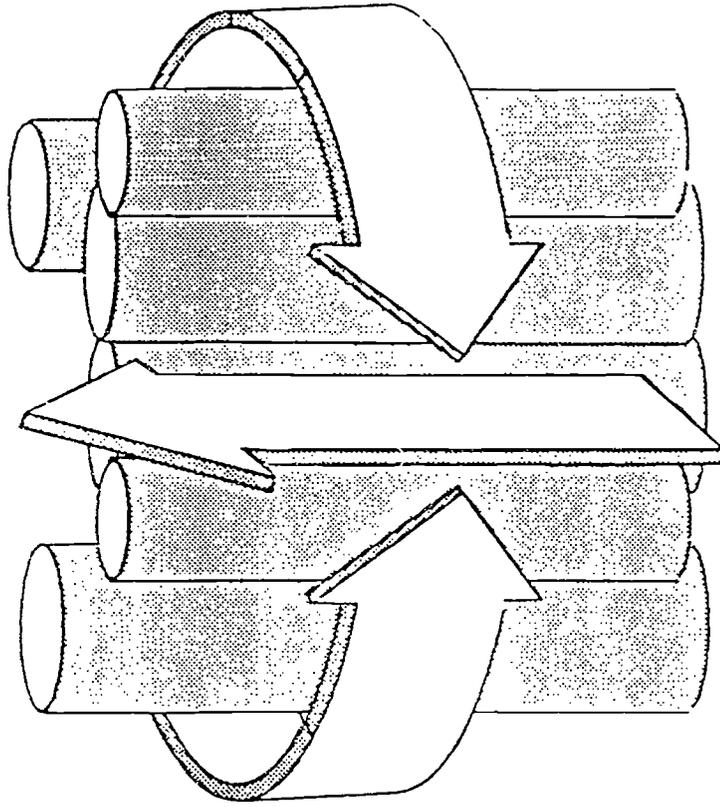


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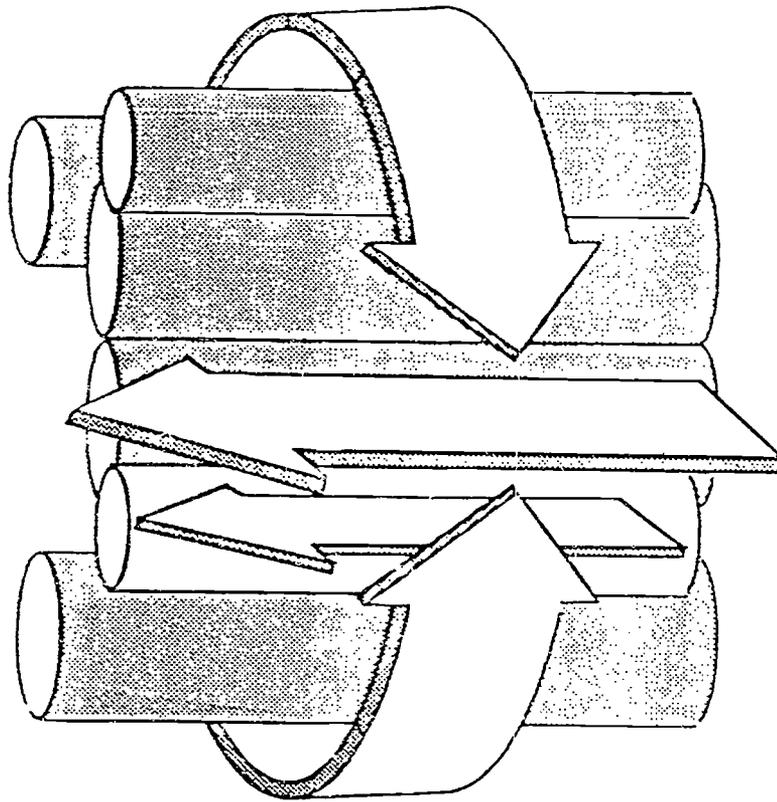
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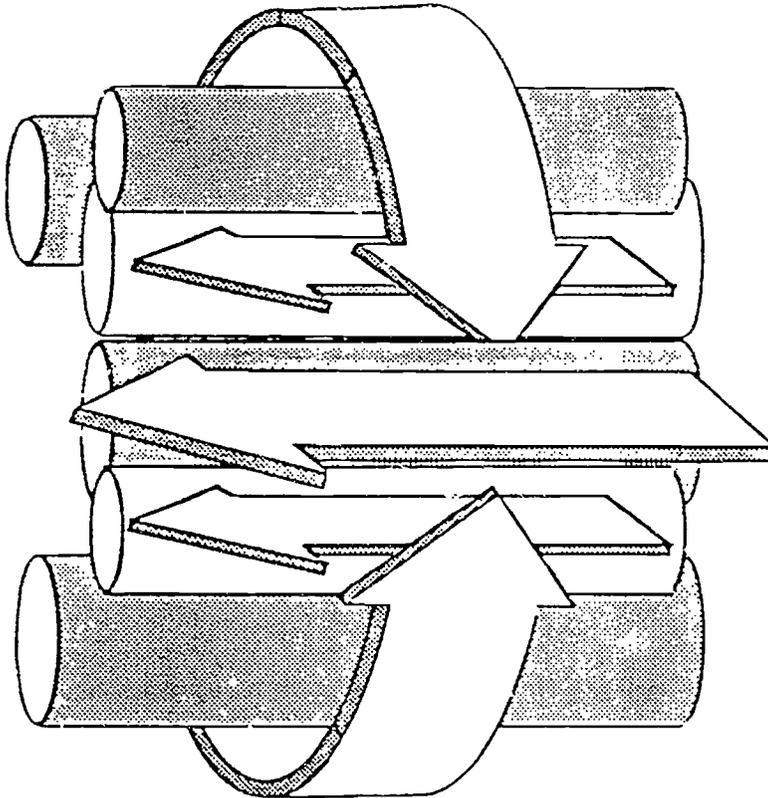
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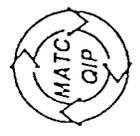
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# Causes of Failure

1. Lack of Commitment and understanding
  - Don't understand concepts
  - Try to delegate leadership
  - Not committed to long-term change
2. Failure to educate all employees
3. Lack of strategic focus
4. No connection to reward system
5. Impatience

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Purpose:

To provide training and education  
for employment.

Values:

Improve the quality of life in the  
community, quality instruction,  
skills education,  
provide education job links,  
meet the needs of a diverse community,  
develop a strong economy.

Critical Processes to achieve purpose:

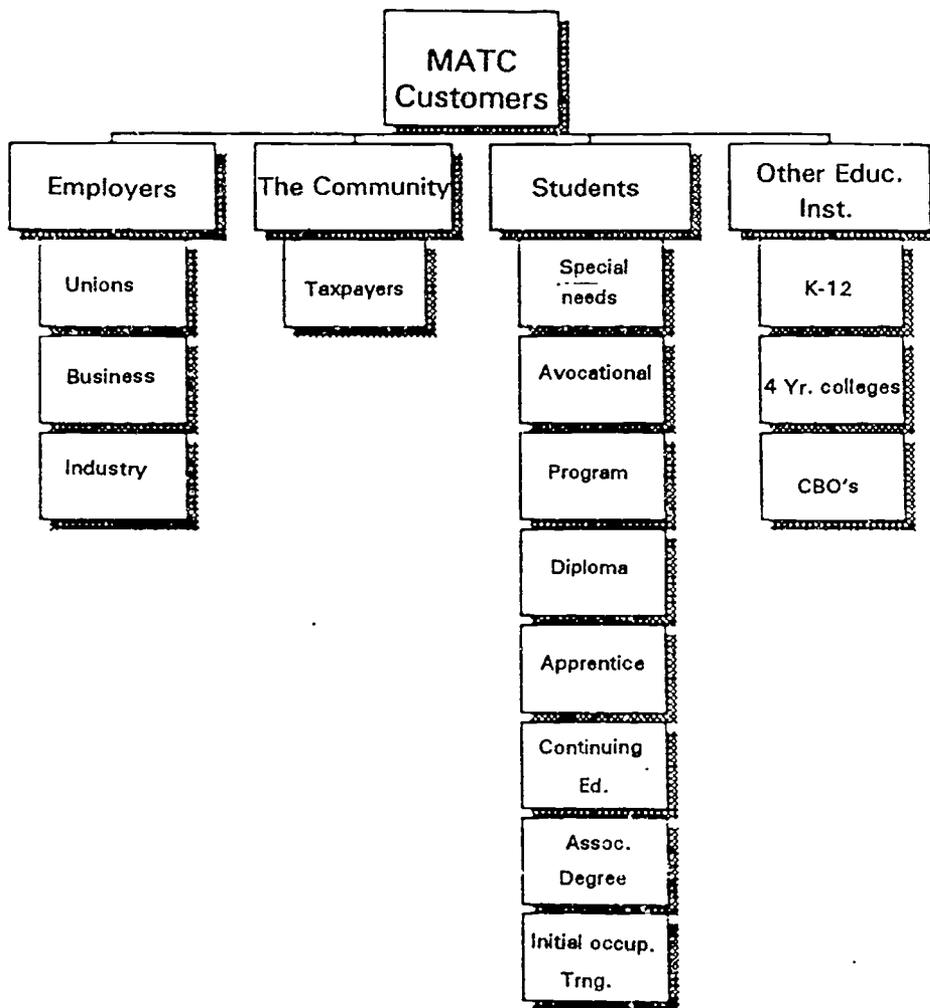
Assess needs/develop program

recruitment and enrolling

instruction

placement

follow-up/evaluate



Customer Needs:

**Employers**

Flexible and Innovative Workforce  
Workers who are highly productive

**Students**

Job Skills  
Job Placement

**Other Educ. Inst.**

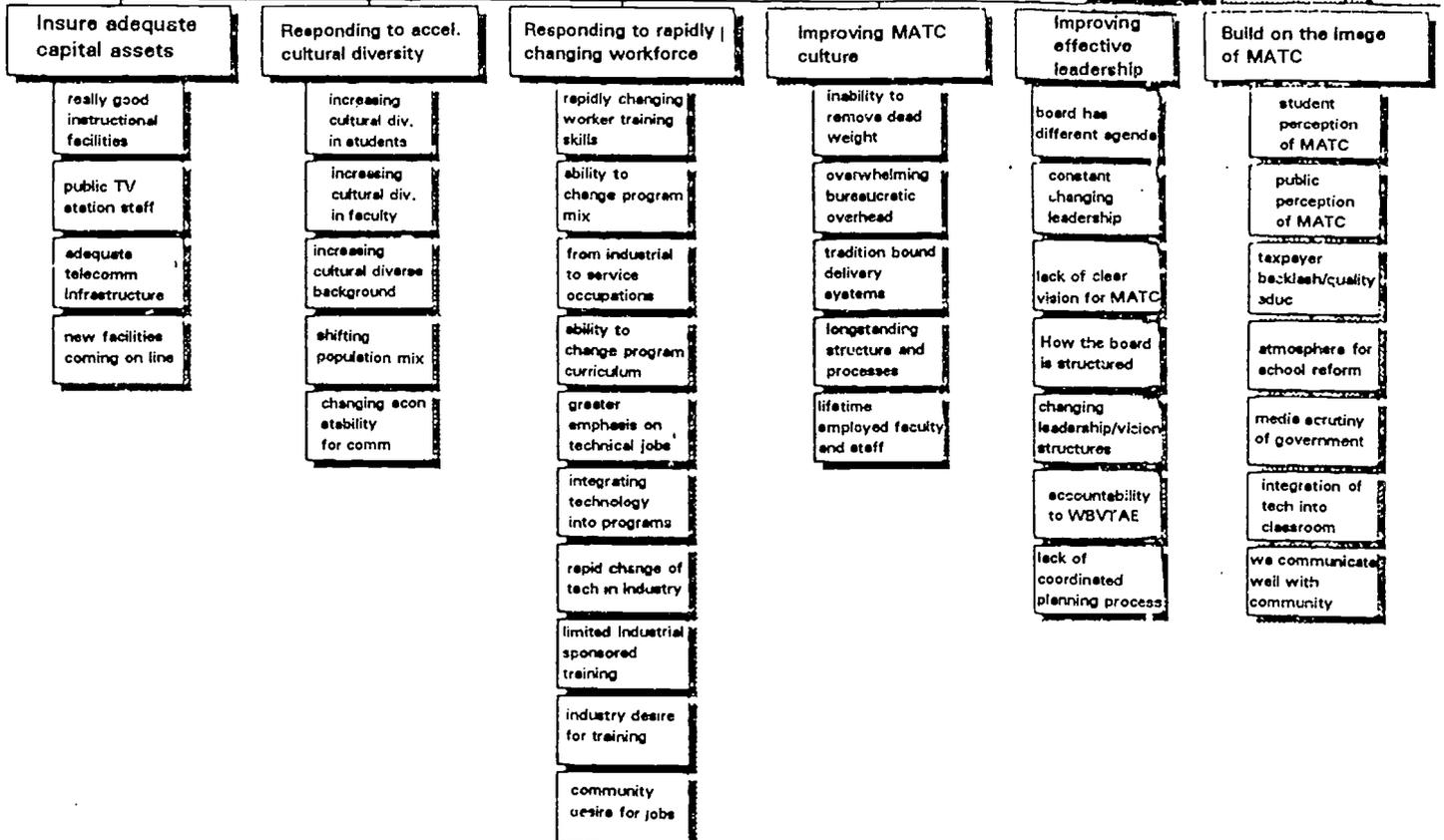
Sharing of MATC resources  
Develop and sustain functional relationships

**The Community**

Cost effective training  
Linking training to job opps.  
Knowledge of job opps.  
Articulation  
Well educated students

	asses/level	recruit/enroll	instruction	placement	follow-up	evaluate
flexible and innovative work	○		◎	△		
workforce that is highly productive	○		◎			△
develop & sustain functional partnerships	◎		○			○
sharing of MATC resources	◎	○	△			
skills to obtain jobs	○		◎		△	○
job placement assist & opps			○	◎	○	○
cost effective educ & trng	◎					◎

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How to develop human resources to meet customer demands

development of cross-training

focus on quality

developing teacher empowerment

need to change delivery methods

need to change teaching styles

dynamic & committed faculty & staff

ER&D implementation

Have the money to fund MATC

taxpayer backlash @ funding request

cap on spending options

lack of funds for development

increasing budget limits on faculty

capital intensive training programs

How the public views education

taxpayer backlash @ qual of educ results

atmosphere for school reform

media scrutiny of government

public perception of MATC

Deteriorating urban influence on MATC

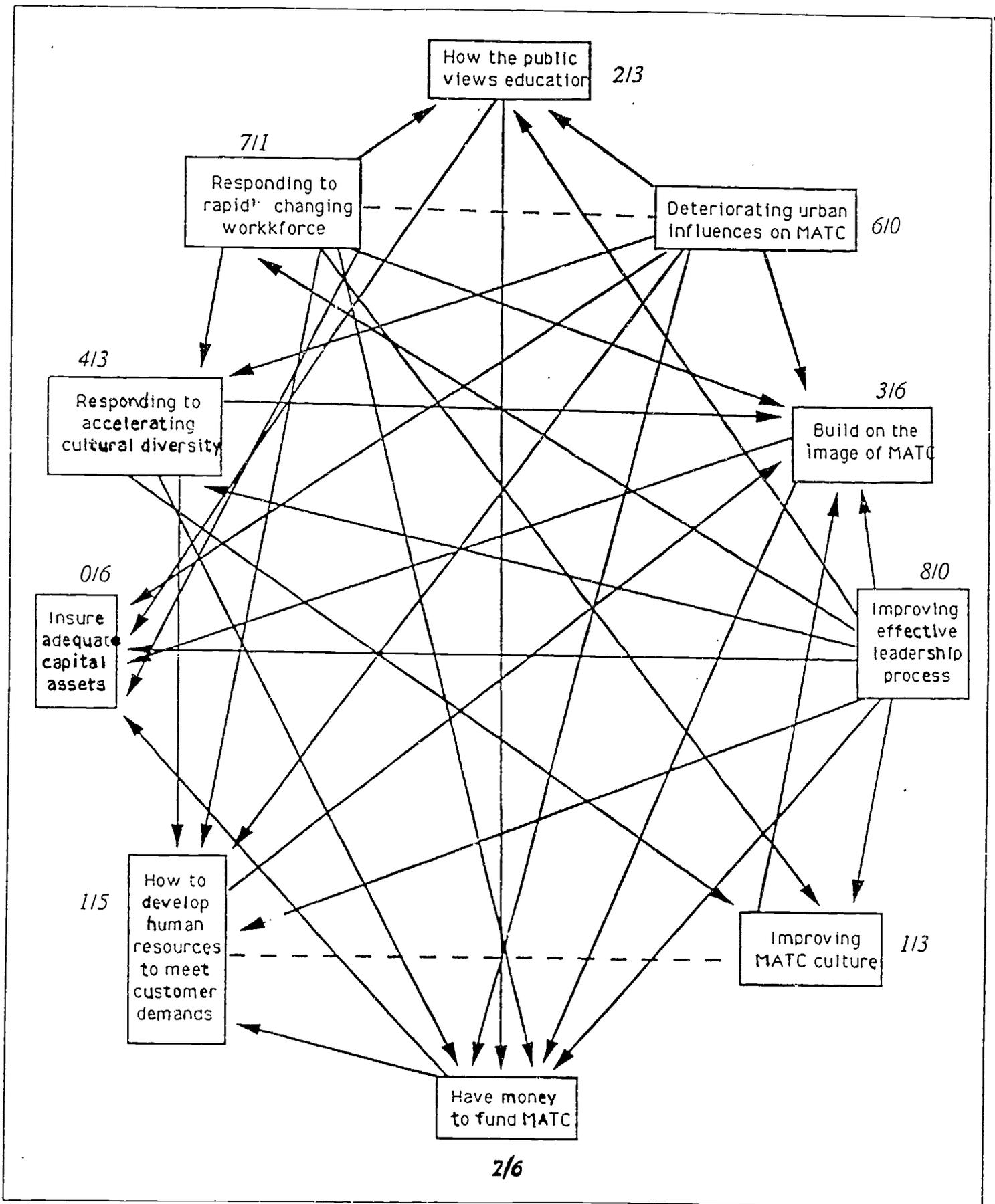
rising tide of urban violence

more urban poverty students

deterioration of MPS

unprepared student body

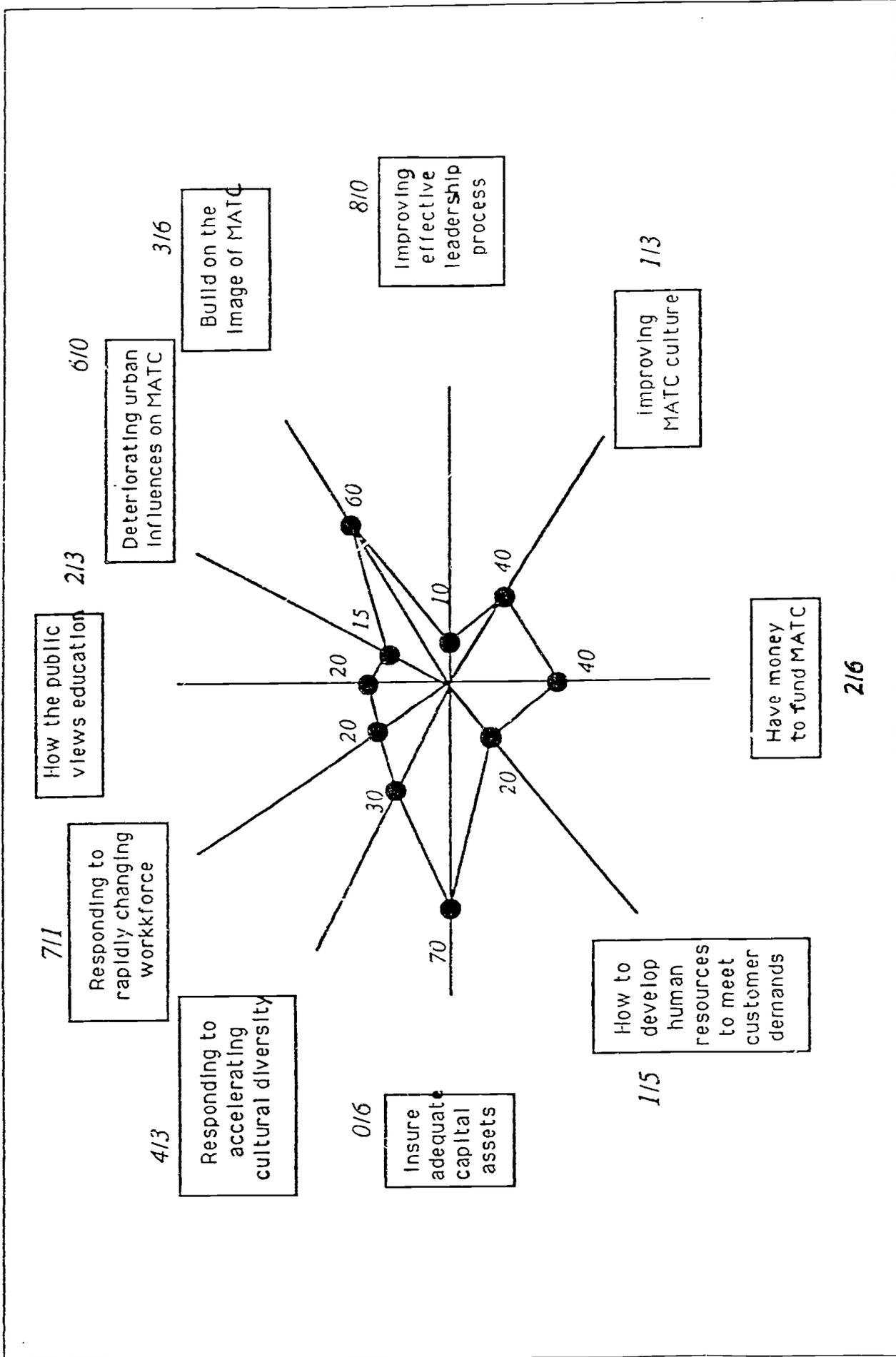
most segregated community



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Breakthroughs based on I.D. & Arachnid Output  
How to Respond to a Rapidly Changing Workforce

**Expand external relationships**

- better cooperation w/other trainers
- increase partnerships w/employers
- loaned worker/exec program
- B&I leaders as classroom resource
- programs @ employer sites
- partnerships with 4 yr. schools
- better services/artic w/high schools

**Continuously improve faculty skills**

- increase amount of sabbatical opps
- expand ER&D
- upgrade faculty skills
- alternate delivery methods
- expand occupational currency prog
- recruit proper faculty

**Integrate basic skills w/occup. programs**

- expand upgrade & retrain opps for students
- develop sources of raw trainees
- use of tools for assessment
- train for work process & skills
- linking basic skills to job skills
- improve basic skills
- integrate basic skills into occup. programs

**Student focused entrance process**

- accept credit cards
- touchtone registration process
- new telephone system
- streamline registration process
- easier access to education

**Redesign business outreach access**

- change marketing method
- expand CEBO utilization
- streamline outside contracting
- programs tailored to employers
- business outreach partnerships
- effective analysis of employers needs
- focus leadership on industry based training
- develop bus/exec support for ind based trng

**Create workforce focused**

- create future scan process
- establish labor market/trng planning
- labor market planning
- adequate \$ to fund programs
- better program curricula
- alter trng to work to work to trng
- effective assessment
- improve planning process
- better analysis of program mix
- quicker sign-off on new curriculum
- increase R&D funding

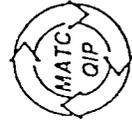
**Student Focused instructional process**

- establish trng. based enterprise zone concepts
- more use of epp/interns/coe ps
- focus certificate program
- more workshop formats
- open entry/open exit
- program employer issues
- modification of school calendar
- better use of physical plant
- better use of regional campuses
- more / created program.
- develop modular approach to delivery

**Utilize instructional technology**

- enterprise computer network
- technology based training
- better use of technology
- teach future workplace tech
- computer accessed indiv instruction
- new telephone system

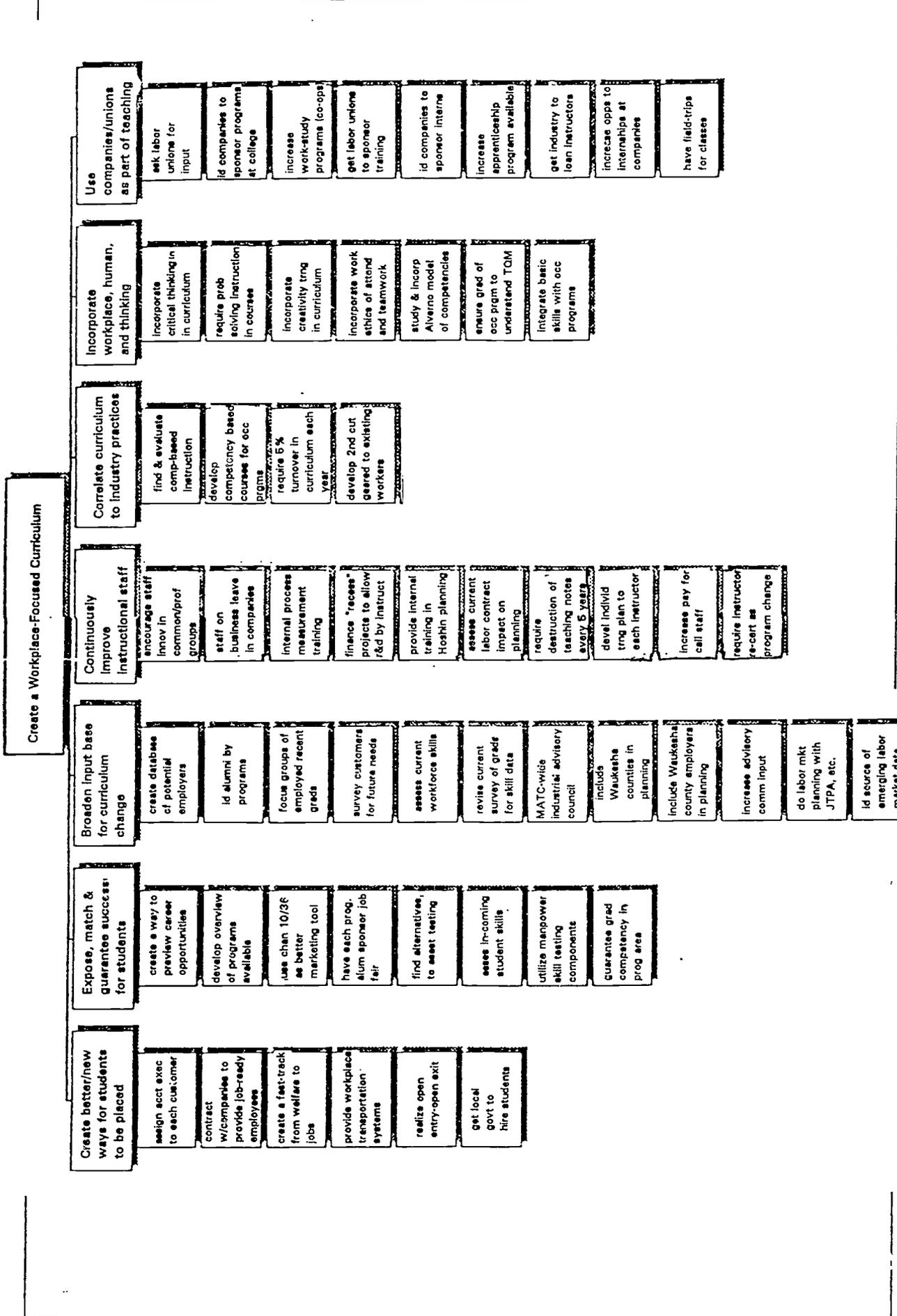
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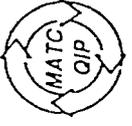


assess / devel	⊙	⊙	⊙					⊙
instruction			⊙	⊙	○		⊙	⊙
eval / follow-up	○	△						○
	expand ext. relationships	redesign bus outreach access	create wrkfrce focussed curric	stud focus inst process	util inst tech effectively	stud focus entr process	int basic skills w/occ prog	cont improve faculty skills
flexible and innovative workforce		○	⊙		○		⊙	○
workforce that is highly productive		△	⊙	⊙	○		⊙	○
develop & sustain functional partnerships	⊙	⊙					○	○
sharing of MATC resources	⊙	⊙		○	△			
skills to obtain jobs			⊙	○	○		⊙	
job placement assist & opps	○	△	⊙	⊙	△		△	
cost effective educ & trng			⊙	⊙	○	△	⊙	⊙



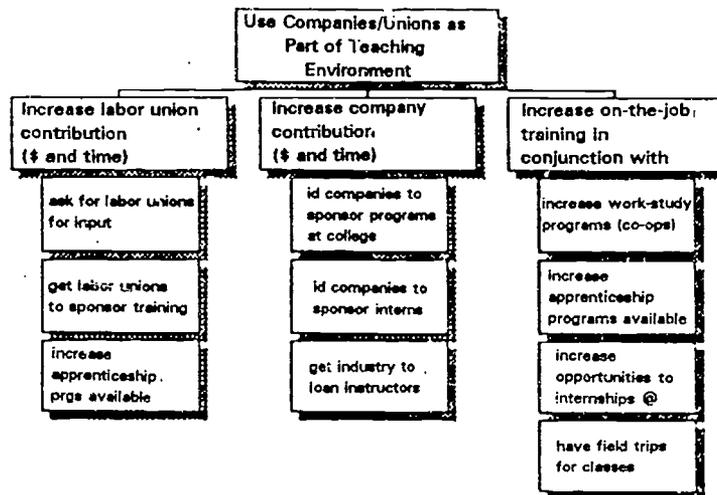
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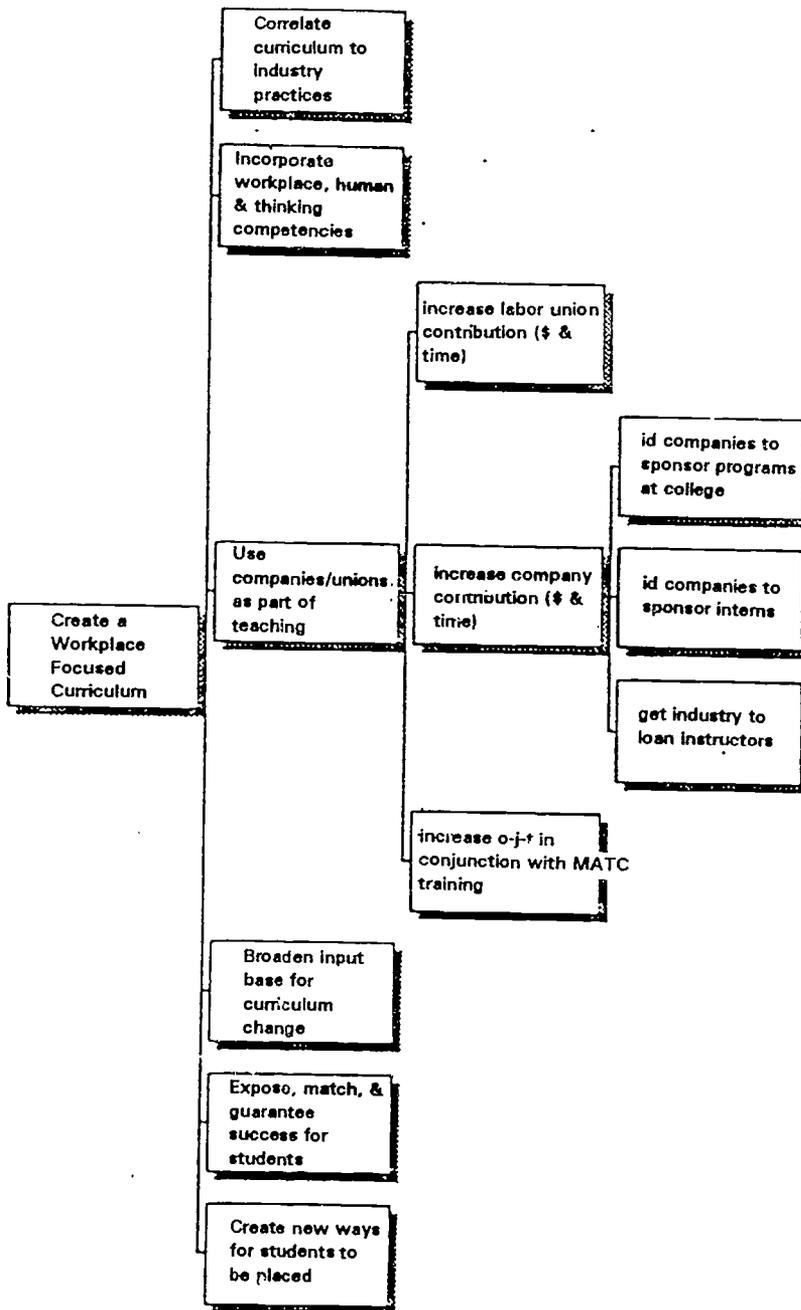
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	Resources Required	Responsibilities	Measurements	Timelines			
<p>Increase Labor Union Contribution (\$ &amp; Time)</p> <p>Increase Company Contribution (\$ &amp; Time)</p> <p>Increase O-J-T in Conjunction with MATC Training</p>	<p>I.D. Companies to Sponsor Programs at College</p>			1 2 3 4 5 6 7 8 9 10 11 12			
				<p>I.D. Companies to Sponsor Interns</p>			1 2 3 4 5 6 7 8 9 10 11 12
							<p>Get Industry to Loan Instructors</p>

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