



Harvesting the Energy of Leadership and Innovation Within Our Education System.

The Productivity Revolution That Puts People at Center Stage.

By Larry Davis, President, Daman Products

Teaching core subjects in isolation.

As a society, we are not equipping our children with the competitive advantages necessary to prosper in the productivity revolution that is occurring. A revolution that puts people, not equipment, at center stage.

A revolution that can have a dramatic impact on productivity in the private, government, service, and education sectors. This is a process that has emerged in the manufacturing arena and is slowly spreading to other sectors. Ironically, it has little to do with manufacturing.

A number of events have come together to create a conflux of thought on the subject of education, not the least of which are the inordinate amount of time spent in our public schools policing behavior, and an unacceptable dropout rate. At the heart of the matter are the teaching/training institutions in our society and how they approach teaching: teaching core subjects in isolation. Our schools' preoccupation with passing state tests is likely exacerbating a singular focus on core competencies. At the technical school level, we teach math, blueprint reading, welding, machine technology, and other technical skills. Our state government, through Workforce Development, provides grant money to industry for teaching these "portable" skills.

These necessary and traditional skills are portable in a narrow sense; however, there is a growing demand for another kind of skill set — skills that are not found naturally in our schools, family units, or traditional business models. These are necessary skills required in addition to core competencies, and in conjunction with technical skills that will make our society geometrically more productive and competitive as we are progressively exposed to the threats and

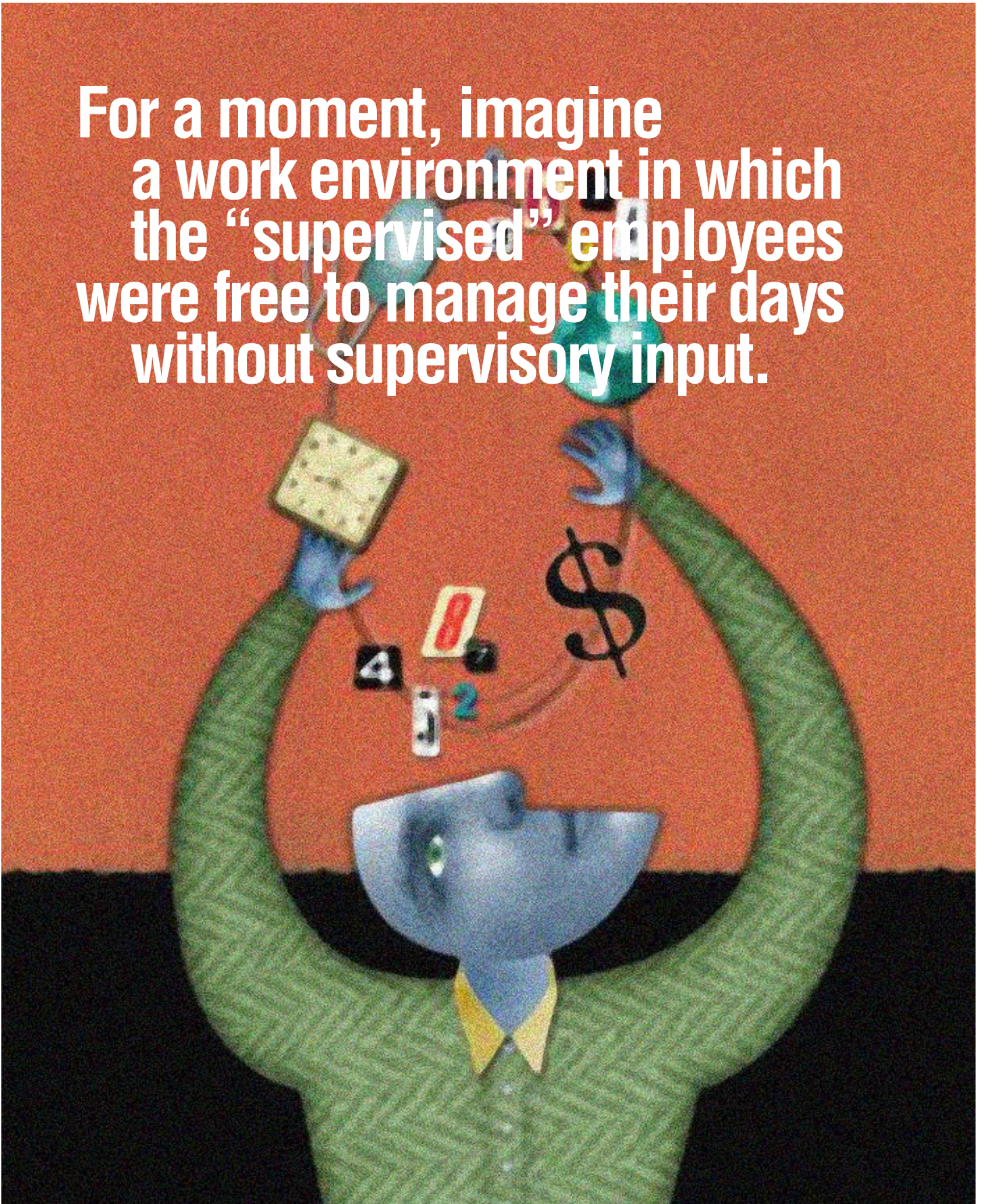
opportunities of a global economy. The sum of our experiences leads us to ask if we should look internally (within our businesses, service providers, governmental institutions, and educational systems) for answers to our perceived loss of worldwide competitiveness.

In order to set the stage, it is important to explain the context for these thoughts. Our company is what is considered an *advanced manufacturing* company. To the surprise of many, this does not mean that we are technically superior, or have the best and newest equipment, nor does it mean that we have replaced humans with robots. What it does mean is that we have redesigned the workflow of our business to move effectively, while we continue to improve the process through iterations and refinements. This may sound logical and not newsworthy. On the contrary, this is unusual and counterintuitive to many institutions. For example, business world fundamentals such as forecasting systems, some business software, cost accounting, and purchasing can actually introduce chaos into operations. Traditional business, education, service industry and government work models are fraught with waste and redundancy because we have been conditioned to work around mistakes and inefficiencies. Most managers will tell you they are glorified "firefighters." They operate in a reactive mode instead of being proactive. We were in this situation in 1997. The simplified changes we have made since 1997 have allowed us to improve our productivity by 25 percent by making "environmental" changes, with virtually no machine technology improvements.

So what is different if productivity is not the result of conventional technological investment?

For a moment, imagine a work environment in which the "supervised" employees were free to manage their days without supervisory input. They decide who should run which machine, not a scheduler. They are responsible for training new people who join the company, not the training department. They receive material into their work area, not the receiving department. They decide when to take breaks and lunch, not their supervisor. They initiate purchase orders for tooling from

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the shop floor and virtually bypass the purchasing department, and receive those tools into inventory. They schedule their vacations, not the personnel department. They perform preventive maintenance on their equipment, not the maintenance department. They determine when it's time to build parts, not someone forecasting product demand. They determine who needs help and provide it, not their foreman. All of these events are doable without the direct involvement of a supervisor or other management personnel. This environment gives people control over their work environment and is the opposite of the typical "command and control" methods of most institutions.

What I have just described is so far from conventional thinking that it may seem absurd. The fact is that this is precisely the path our company chose. It hasn't been an easy path to blaze, as most of us were not raised or educated in fundamentals that are essential for productive teamwork.

The magic of team competencies.

The magic lies in training our people to work comfortably within teams, to teach leadership and communication skills, and to think creatively. This is certainly easier said than done, but imagine a work environment where people are comfortable leading meetings, using brainstorming and problem-solving techniques when encountering problems, have the ability to reason and find information, and are comfortable giving and receiving feedback. We call these skills "team competencies." In short, these are

simply leadership and communication skills, and affectionately considered "soft" skills. The problem with the term "soft" is that it implies something less important than "hard" skills. I believe they are at least equally important and, arguably, soft skills are more universally applicable and the foundation upon which future competitive advantage will be gained.



Changing hierarchal environments.

Our family structures are hierarchal, as is our educational structure. Throughout our lives, we are indoctrinated in command and control relationships, and the resultant psychology that locks us into one or the other. It is no wonder that our governmental, educational, and business institutions mimic this model – a model that constrains the majority of Americans. These are people who have much to offer, but are seldom asked for their opinion; people who are emotionally confined and frustrated; people who make up the vast majority of our productive society. What if we could harness a fraction of this pent-up energy? I believe the results would be powerful.

With team competencies in place, our people have been given uncommon accountability and responsibility to accomplish their work. We have effectively unshackled their minds and engaged their brains, unlike most traditional operating models where work is accomplished per the boss' instructions. This new model has been incredibly effective in increasing our competitiveness. Imagine what a 25 percent boost in U.S. productivity would mean in terms of our global challenges.

The value of training in mainstream education.

Here's the rub: Finding people who are prepared properly for this environment is difficult. Other companies that have made the same improvements state that they will, on average, interview 100 people before finding someone who exhibits the values and traits suitable to this environment. This

expends a great deal of time and energy in the hiring process and inhibits companies from keeping up with product demand. Additionally, in-plant training to bring new people up to speed on our methods requires even more resources. We recognize the value of this training and are more than willing

to commit to this investment in our new people. But imagine the competitiveness that would result in this country if what we were teaching our people was readily taught in our learning institutions. Instead of this being an anomaly, what if it were part of mainstream education? In my opinion, these types of soft skills are much more valuable to this nation's workforce. Where welding skills will allow an individual to find another welding job, soft skills will allow people to move in and out of industries.

Imbedding “soft skills” and the need for educational change.

What have we learned? In teaching team and leadership skills, we have found that the most effective method is to relate the training to solving a real problem. Training based on hypothetical situations is most often time wasted. Bringing a team together around a common problem, and introducing techniques to understand and solve the problem, has been powerful. We have seen shift workers, who in the past would not speak to one another, leave a group training session with hope that there was a likely solution. In this setting, the teams had a real need for learning skills, and reinforce the power of those skills by solving their issues.

If this is valuable learning, how do we introduce it into our educational system? We believe it starts with a dialogue, simply suggesting that our current system is in need of change. I can speculate that the change will be difficult and that “teaching a class” in soft skills will not get the job done. Soft skills have to be imbedded in the entire curriculum, and

will require major paradigm shifts in teaching philosophy and in the way our educators are educated. A new system would aspire to encompass core skills learning in conjunction with team and lead-

ership building. This may require classes that no longer are identified as “math,” “science” and “history,” but are instead rolled into multidisciplinary classes where teachers work jointly to coach and mentor students as they research subject matter to solve multidimensional problems. We believe that even as our employees are activated and energized by our trust and investment in them, so will our students be engaged when they become active participants in their own education and realize that learning can be rewarding and exciting, as can the workplace. Learning and success can be infectious, and this new approach to education may just be the way to stimulate the process. We have also learned that significant improvement does not happen through an evolutionary process, but instead through the deployment of disruptive technologies or, stated another way, major system change. Nibbling around the edges of our current educational system will, at best, generate incidental change.

As more businesses realize the benefits

of abandoning the command and control models, the need for intelligent people with solid team competencies is going to grow. As a society, we are not preparing our children to prosper in this competitive team-oriented business model.



Focusing on more than one goal.

The widening gap between the educated and the under-educated, and the increasing dropout rate indicate that our current system is failing all of us. By dismantling and eliminating many of the “tried and true” business practices still in favor with some today, we have also learned that complex control systems become cumbersome and tend to make accomplishing valid goals difficult. Those goals that were of value were streamlined. The net result is that everyone in the building is focused on our only goal: meeting customer needs. We measure only that which supports that goal. Our educational system should be singularly focused on meeting the needs of its students, but I submit that educators live in fear of failing the ISTEP and other state-mandated testing standards. Consequently, they divert too much time to remedial study, coaching, and “teaching for the test” so composite scores will meet state guidelines.

A Full-Service Fluid Power Support Team

Daman provides outstanding technological and service leadership beyond customers' expectations in order to promote their interest, thereby ensuring continuous opportunities for Daman employees.

This philosophy statement drives the organization. As a result, Daman has developed a solid reputation as one of the best suppliers customers have. Each Daman team member is driven to provide long-term, reliable service that exceeds customer expectations. Daman offers a complete line of hydraulic valve manifold products comprised of two basic groups: Custom Engineered Products and Standard Products. All components are manufactured to tolerances that meet or exceed National Fluid Power Association (NFPA) as well as the International Standards Organization (ISO) specifications. Daman has created a streamlined system for estimating, engineering, and manufacturing Custom Engineered Products from as little information as a hydraulic schematic and component bill of materials. Daman has also developed the most comprehensive catalog of Standard Manifold Products in the world. Our product lines provide every customer with more than one million choices to refine and enhance their hydraulic system, ranging from ISO 02 valve patterns through ISO 10.

More than manufacturing. Daman means business.

Daman Products means business when they talk about non-value company activities. Daman's "Advanced Manufacturing and Marketing Concepts" presentation is a lively and, at times painfully honest, case study that gives industry leaders insight into Daman's evolving management system and how it has changed the company's internal effectiveness, profitability and market position.

Walk the talk – Daman makes a very powerful presentation.

Daman's president, Larry Davis, explains the operational obstacles, and their evolving journey. Davis contrasts former methods with the company's current systems and illustrates the dramatic benefits that have been realized as a result of Daman's redesign of its processes. The outcome is a complete overhaul of the traditional management/employee culture. Davis has played a prominent role in Daman's overall performance as the lead promoter of Daman's Advanced Manufacturing and Marketing Concepts programs. His experiences touch on culture change, waste in time-honored systems, why improvements seldom manifest tangible results, effective learning, and the lunacy of expecting improvement without systemic change. Davis also addresses the positive, unintended consequences of a business culture that is continuously improving.

The "Daman story" is presented to local, regional and national audiences. It encompasses Davis' "outside the box" vision for our nation's education system – a system that would develop all traditional disciplines into project-based, meaningful learning experiences. It's a vision that promises to capture the imagination of our children and energize them, something Davis sees as key to our future national competitiveness.

Learn more detailed information about product innovations on our interactive Web site.

Daman's interactive Web site offers valuable information and is produced to help users understand individual products, process innovations, and product service issues about the Hydraulic Manifold Industry, customer solution information, and specific product applications and technologies. You can find Daman Products on the Web at www.damanifolds.com.



1811 North Home Street
Mishawaka, Indiana 46545-7267 USA
North America: 800.959.7841 • Fax: 800.241.7664
International: Tel: 574.259.7841 • Fax: 574.259.7665
Email: sales@damanifolds.com
Internet: www.damanifolds.com

Daman Products Company is a marketing-driven company that actively practices Lean concepts to effectively provide value and service to its markets, and is primarily engaged in the design and manufacture of hydraulic valve manifolds and related products. For more detailed information on Daman Products Company, Inc. products or technical specifications on specific product lines, call 800-241-7841 or visit us on the Web at www.damanifolds.com.