

The Learning Curve

AAI leaders working to solve school to work dilemma

Albert McHenry, dean of the
College of Technology and
Applied Sciences at ASU East

by Cynthia Scanlon
photography by Duane Darling

Here is what is shaping up to be the questions of the new millennium for employers and employees everywhere: Is it industry's responsibility to train workers of the future, or does education still bear the responsibility? And with the continually changing and competitive marketplace, just what kinds of skills will workers need to know to take industry into the next century? Who's going to design the curriculums and who's going to pay for it?

The answers are as varied as the people and companies involved. Yet, the marriage of education and business will be mandatory, and the challenge is going to take leadership, communication and focused effort to sustain any kind of success.

The Arizona Association of Industries has decided not to put off the answers to these tough questions any longer. Instead, they are confronting the issues head-on to determine what needs to be done, how and by whom. To many business leaders, what's clear so far is that workers graduating from schools today are unprepared for our fast-paced, technological work place. "We are finding that a lot of students coming out of schools do not have the background, training, or understanding of business itself," says Albert Bleecker, president and CEO of Innovations In Manufacturing in Tucson, who is also chairman of AAI in southern Arizona. "An engineer coming out of school today does not have basic background they should have."

R. Dale Lillard, president of Lansdale Semiconductor, Inc. agrees. "I have four children who are in the public school system and I have a perspective of what public education is about," he says. "I have come to the conclusion that it is business's responsibility to train the employees the way they want them to be trained."

He adds, "It would be nice to have our high school graduates be able to work chemistry equations and know what 'ph' is, but the reality is it's the company's responsibility to take and train the people to the next level."

Many businesses, now believing that education is not up to training

challenges, have opted to develop their own training programs for their own staff and recruits. Many point to the success they have had with their own custom-designed, in-house and outsourced training programs. "We've brought in a lot of seminars and sent people to seminars," says Lillard. "It has been phenomenal for my company and my staff."

Jim Perlow, vice president and general manager of Jet Products Co., Inc. has also had success with his company's in-house training. "We've been teaching our own for more than 10 years and over half of our work force has never worked anywhere else," he says.

For many in business today, this decision to take on education's role has come about because of a breakdown in communication. To put it simply, business and education are either talking a different language, or not talking at all. "I have found that educators live in a different world," says Bleecker. "They have a program they are working on, but unfortunately, many times, that is not what the business needs. Business people and educators have to get together and actually come into a factory and understand the problems we have."

Don McGlothlin, director of rotorcraft assembly and flight test for The Boeing Company, agrees. "We need to meet together, take [educators] on tours of our facilities, show them what we are doing and see if they can relate that back to the classroom and what they are teaching," he says. "Then they can go back to the classroom and say that they visited Boeing, or Intel, or Motorola and this is what the students need to do and then establish a curriculum that allows them to do it."

Bleecker would like to see that happen as well. "Once the teachers understand what is going on, they will be able to share with the students that this is the actual life itself," he says.

As might be expected, those closely associated with education have a different view of things. "Business is without a clue as to what education is willing to do because they don't talk to us," says Albert McHenry, dean of the College of Technology and Applied Sciences at ASU East. "They're off on their own clueless mission to spend their own money to do things that

education is already doing for them and willing to do for them."

Surrounding McHenry's dissatisfaction is the tendency of industry to quit when the going gets tough. "Industry talks out of both sides of its mouth," he says. "When times are good it has big needs and it is ready to go out and turn the world. But if there's the slightest downturn, it lays everybody off and pulls its money out of any efforts that are going on. So there's no sustained effort. It ends up eating its eggs and crushing the remainder."

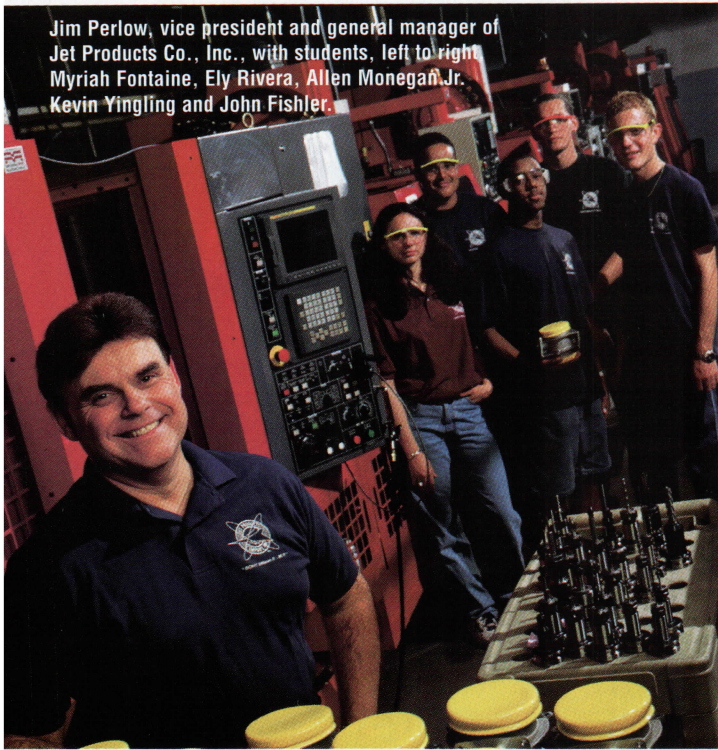
Those most closely associated with the situation have no desire to drop education from the equation. Rather, they would like to see a joint partnership between education and industry, if possible. To accomplish this, Perlow believes that business must become proactive instead of complaining. In other words, he says, stop making excuses and start participating. This will involve a number of factors, he knows, including understanding everyone's limitations and understanding the pressures of the global marketplace.

Lillard is in agreement with McHenry that business is not necessarily better equipped to take on the role of education. "We've tried to impact education requirements and it's a political game that we are not very good at," he says.

Still, he is a firm believer that it will be up to business and individuals themselves to understand that constant education after traditional school is now a necessity. "We have to educate people that it's their responsibility to be willing to be educated beyond high school and college," says Lillard. "The days of getting your degree and never going back to school are long gone if you want to be a good employee."

And he also agrees that this is easier said than done. "If you look at how many people take advantage of in-house training, everyone says it's important, but the reality is it's a struggle to get people to take the time off and do it," says Lillard. "I always tell people if I was going in for brain surgery, I would want to make sure that the surgeon had been to the last seminar. And that's what I expect of my employees."

Jim Perlow, vice president and general manager of Jet Products Co., Inc., with students, left to right Myriah Fontaine, Ely Rivera, Allen Monegan Jr., Kevin Yingling and John Fishler.



It is exactly this mind set of continually educating the work force throughout their work tenure that Perlow has been successfully pursuing in his company. He likes to think of the work force as one in constant transition where employees understand that they are going to

move into something else, but the proper education can help them to get there. "If I'm going to hand off someone that's going to be an engineer, I've done the best marketing I can possibly do for this company," says Perlow. "They are going to have one thing going for them that none of the other college graduates have: application." He adds, "If someone is marrying their educational experience and theory with the real life experience of how it works, see how powerful they will be when they hit our customer level. They'll zoom right to the top. And when they reach that top scale, they are ready to move on. They've got the education and application and we've done our job, we've done them and the community a service, and we maintain our labor ratios."

Maintaining the ratios has now become critical to business, especially since the labor shortage has made securing good employees so competitive. "If I hire an employee today that is young, that's probably a million dollar investment if you amortize their life time employment," says Lillard. "It's a huge investment."


Not only that, but the bottom line is also affected when businesses have to play musical chairs with talented employees. "When you have a small nucleus of people that are skilled and they bounce from one place to another, all they do is drive up your wages," says Perlow. "And when they drive up your wages, they make you less competitive."

McHenry insists education understands all of this, and what's more, can deliver what business needs. What education needs in return, he says, is communication and knowledge. "We need to know where the jobs are going to be and because our gestation period can't be much shorter than a year, and ideally three years, for occupational preparation, we need to know as soon as we possibly can in order to be able to make the adjustments to deal with that," he says.

Education's inability to quickly make changes and turn on a dime

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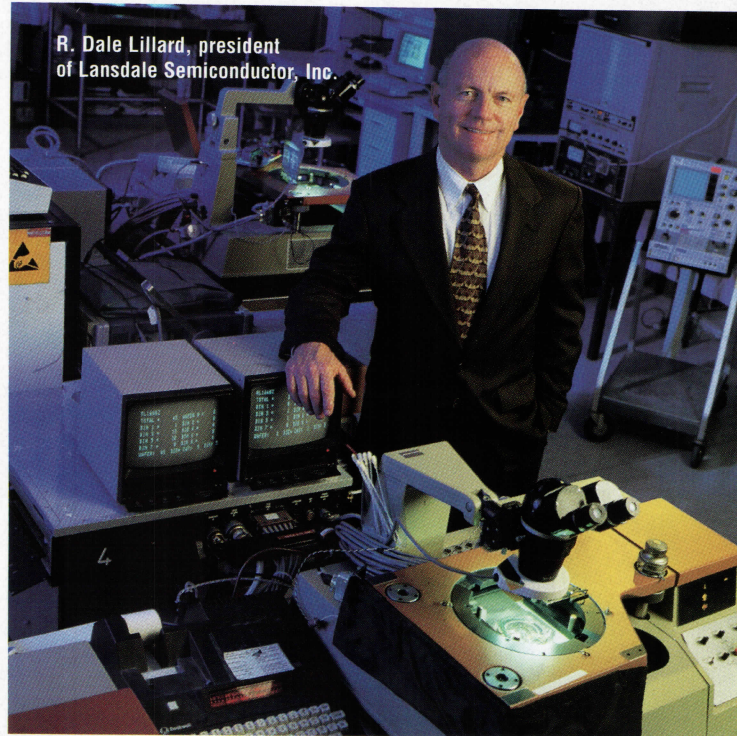
is one of industry's complaints, adds McHenry. "But their [ability] will be no quicker if they take on this burden," he says. "Because in the final analysis, the things that constrain us are the same things that will constrain them."

Those constraints include finding enough people with expertise, getting the word out and putting the infrastructure in place to deliver. "All of those things are tough," says McHenry, "but in our case it's tougher because we are doing it with taxpayer's dollars on a legislative timetable."

It is clear that both sides are going to have to make a sustainable commitment. The days of giving employees a few days of on-the-job training and sending them out to work are over, most likely forever. "And everyone, from industry to parents to employees and new workers are going to have to be educated and learn new behavior, says McHenry. "In the College of Technology and Applied Sciences, we have only small numbers of students coming to us because they think what we do is hard," he says. "When you go out and talk to the average 10th, 11th, or 12th grader, most of them have never changed oil in a car or looked under the hood. That's how serious this problem is."

McHenry believes educating the workers of tomorrow must really begin when they are very young. "The reality of finding kids capable of making these choices starts at second or third grade," he says. "If you wait, they lose the technological zeal and insight necessary to even want to chose one of these [manufacturing or technological] areas."

No one thinks the task ahead will be an easy one. The choices to be made will be difficult and the road not always clear. Pressures from business people who don't have enough time push up against educators who say the curriculum is set and funds are low. But if everyone makes a concerted effort, things can change, things are changing. The possible can become reality. "If people want to make



R. Dale Lillard, president
of Lansdale Semiconductor, Inc.

it happen and they have the fortitude, they will make it happen," says Bleecker. "It's not who's going to make the first move; it's got to be everybody making the first move."

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