SHOP CLASS IS BACK…IN TWO WAYS!

All shops seeking operator efficiency for production increases can do so through the education programs offered by machine tool builders and control suppliers alike, while industry must also nurture the next generation of machinists

We've all heard about tribal knowledge and it certainly has its place, in the real world of machine shops. Those who have the hands-on experience dealing with sophisticated controls, drives, programming languages and set-up devices, as well as the quality checking instruments in their shops, are invaluable sources for knowledge and practical problem-solving strategies. When they talk to the new machinists in the small job shop or huge OEM production department, they are simply talking to themselves, a generation ago. Despite the advancements in computer technology and the ways young people sometimes occupy their time, eg. playing video games instead of reading *Popular Mechanics*, there's one very special characteristic of all machinists. It's the need, maybe even the passion, to use a tool to make something. By imparting that how-to knowledge from one generation to the next, tradesmen of all types have prospered throughout the centuries.

Nowadays, there is another source and it's one that far too often ends up a low priority at many shops. It's the training offered by votech schools, machine tool builders and the very manufacturers of those sophisticated computer controls. Good training does indeed often occur by one operator showing another how something gets done better, faster and more efficiently. Today, it is also true that the best training requires parallel simulation of a CAD program operation, workpiece set-up, machine cycle or tool changing strategy outside the envelope of the shop's work cell. This offline instruction can be, often must be, a precursor to the start-up of an operator's work life. For a shop owner to think this activity is a low priority simply means that shop will be at a competitive disadvantage in the very near future. The simple fact is that technology is ramping up at a very fast rate and "the way we've always done it" just won't work anymore. Shops of all types, it's been documented, can realize a 20% or better improvement in their performance, from the very first part, when a machine tool and its controls are properly and fully utilized.

Likewise, the machine builders and controls suppliers, by furnishing the votech schools and their training facilities with the very latest technologies, can improve their own bottom lines. This results from better, more brand loyal CAD and machine operators entering the market, better prepared.

In a sentence, the industry needs to realize that training is not a cost, it's an investment. And, it's an investment we all need to make, if the industry is remain solvent in the U.S.

As a necessary corollary to this scenario, the industry overall must encourage young people with a math or science inclination to pursue manufacturing as a viable career path. A quality machinist can very quickly make an excellent living, nowadays, IF he or she has the necessary skill set. That means the industry must invest in the schools and many of us have done that. I help a local high school in my neighborhood acquire the best machines, equipment and workstation seat licenses possible to train kids who don't mind getting their hands dirty to succeed in life.

One well-known machine tool dealer has a "champions" program where the stars on the field of competitive sports are also becoming stars of the future in the machine shop world. Why? Because they'll be better trained and able to compete in the workplace for the top jobs. These competitive young people can channel that same spirit they display in sports into the business of manufacturing.

As a last note to the parents out there…encourage your kids to consider the manufacturing world as a great path to success in life. Remind them that nothing happens until somebody makes something, whether it's a car, airplane, washing machine, orthopedic implant or the gears, bearings, nuts and bolts that make things go.

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