

Professional Development

Education and Training in Construction ([Back to Table of Contents](#))

Historically continuing education and ongoing training were not regularly associated with the construction industry. Eventually they were considered nice but not particularly necessary. Today they are a critical component for success.

Research indicates that industrial skills (including management skills) have a half-life of five years which means that half the skills workers use to do their job will be obsolete to that job in five years and virtually all skills will need to be replaced with new skills every ten years. The construction industry lagged behind the continuing education and training thrust of the 90's and was late in recognizing that the skill levels necessary for executives, supervisors, managers, and the labor force to do their job are the responsibility of the company, not the employee. Inefficiency and unimpressive productivity improvements in the construction industry were tolerated behind the excuses that every project is different, there is limited control of the work environment, and the labor force is not consistent from project to project.

Because it was considered a custom product, construction used to enjoy sufficient margins to profit in spite of built-in efficiencies. However, as construction moves closer to becoming a commodity, efficiency and productivity is critical to profitability. Construction enterprises must become more efficient as the industry continues to consolidate. Larger companies are embracing training and education as a necessary cost of doing business and have an advantage with their size there is an economy of scale they can more readily provide the necessary resources and up-front costs. Small and mid-size organizations can accomplish the same thing through cooperation and through their associations, but time is short. Larger companies are moving more quickly and small and mid-size companies are not particularly known for collaboration and joint action.

Many contractors describe continuing education and training as expensive, but expensive of course is relative and research clearly indicates that training provides a superb return on investment. The rapidly changing business environment requires increasing sophistication and efficiency to remain competitive and most construction enterprises are playing catch-up to overcome skill deficiencies.

One reason company-supported training and education seems expensive to contractors is that it for many it is a new overhead line item which is now a regular cost of doing business. For example: Banks train employees to be bank-tellers because they don't expect people to come out of school knowing how to be tellers. Banks continue training on a regular basis as their systems, procedures, policies and regulations change and they continue to provide their employees with the education and information to advance within the company. Continuing Education and training are a normal cost of doing business and of succeeding in the construction business. The organization that delays or debates this reality will remain static as others advance. The resulting shift in competitive balance will impact the already high construction industry failure rate.

Why now? Construction is becoming a commodity which is structurally modifying profit potential while industry business risks remain constant and elevating the need for efficiency and

productivity from critical to survival level. Our industry has over-estimated on-the-job training and years of service. We over-value some people with 25 years of experience who actually have five years of experience and 20 years of repetition. An organization of people who do not regularly renew their skills and learn new things is destined to replicate itself indefinitely, miss opportunities for improvement, and fall behind the efficiency and productivity of more enlightened competitors. Large companies are not necessarily more enlightened, but seem to more fully recognize the necessity for employee skills development and enhancement, and are less reluctant to invest in education and training.

There is evidence that suggests that even modest education and training efforts provide huge returns in the form of performance enhancement, employee motivation, and improvements in productivity. Most companies invest in executive and management education first which does not offer direct measurements of field productivity enhancements such as improvements in unit cost. Therefore few companies have a baseline for quantifying changes resulting from training efforts, but all report recognizable improvement. My experience indicates education or training expenses applied to almost any area of a construction operation or organization are recovered rapidly and in a number of cases two and three times over. It also appears that many of the contractors who describe training as expensive have made that judgment on anticipation of costs never experienced; not on training undertaken.

The time for debating the relative value of continuing education and training in the construction industry has been overtaken by the rapid rate of change in the business atmosphere in which we operate. Owners have become more sophisticated and construction has been de-mystified to the degree that other parties to the construction process understand the methods, procedures, and information needed to produce the work. Well informed designers, owners, users, and inspectors provide an increasing challenge to construction professionals who have little choice other than to keep up, improve their skills, or fall behind. On-the-job training is not enough. Improvement and replacement of skill sets requires serious study, continuous education, and a commitment to life-long learning.

The construction industry is at a crossroads. We can continue to debate, or we can provide necessary education and training to overcome lost opportunity and keep up with the business environment. The question, "how much will it cost?" will inevitably be next. The answer is: "as much as an organization can afford". There is a huge void and the first to improve will shift competitive balance and pick up a lead that will be hard for others to overcome. The reason is clear: Education and training pays immediate dividends in the form of increased profits. Contractors who invest will maintain or increase their lead by reinvesting profits resulting from education and training into additional education and training. The firms that have already invested in training have reinvested because early results have been so dramatic that additional effort and energy is being applied in the same direction.

There is tremendous opportunity in continuing education and training in our industry, in part resulting from the inescapable increase in the rate of change the industry is experiencing which is magnified by the neglect to date.