

Using Training and Development to Move Employees Along Career Paths

S&C Electric Company is a well-established, privately held, mid-sized manufacturing and services company. Since 1911, the company has designed and manufactured specialized electric power switching and protection products and provided consulting services to the electric power industry. More than 1,700 people are employed at S&C's Chicago headquarters, including over 200 engineers and technicians, a global sales and accounting staff, and more than 1,000 production and support workers. The staff is very diverse, including people from 70 different nations. S&C also has subsidiaries in Wisconsin, California, Toronto, Curitiba, Brazil, and Suzhou, China. S&C's primary customers are large power consumers and electric utilities, located in all 50 states and around the world.

S&C's strong commitment to education and training began more than 40 years ago when it became difficult to find and hire skilled machinists, tool and die makers, and sheet metal workers who could operate the company's highly specialized equipment and produce high-quality products. S&C's solution was to train its own employees in these skills.

This was not simply a matter of offering a few training workshops. To succeed, the company believed that the training had to be part of "a larger vision." It had to be built into an infrastructure that included career opportunities, education, performance reviews and incentives, and the support of leadership. The company believed that only such a comprehensive infrastructure would retain skilled employees, help them advance on a career path, and increase their commitment to the company.

Expanding Skills and Knowledge

"We had the vision but started small, with just one tool technologist program" said Gene Cottini, Manager of Training Services.

Now the company offers a rich mix of in-house customized training in areas such as machine operations, blueprint reading, math, English as a Second Language, quality, and computing, as well as career development workshops that help employees manage their careers by taking advantage of S&C's training and career opportunities. S&C's annual education budget totals \$4 million, about \$2,500 per employee.

Six years ago, the firm reimbursed only for courses, degrees, and certificates that were directly related to the individual's job. In 1995, this education reimbursement policy was revised to become much more broad and comprehensive. With the facilitation of HR, the company identified all of the skill sets, degrees, certificates, and competency areas that were of any immediate or future importance to S&C. Now if an employee wants to take an undergraduate or certificate course that in any way fits into what the company may need in the future, tuition is reimbursed. For example, Samuel, a molding machine operator, is now pursuing a BS in Computer Science at Northeastern Illinois University because he hopes to one day become a part of S&C's IT group. He is two-thirds of the way through the program. He receives 100 percent tuition reimbursement for courses in which he earns an "A" or "B" and 50 percent for a "C."

COMPANY STATS

Name	S&C Electric Company
Industry	Manufacturing
Number of Employees	2,300 worldwide; 1,700 in Chicago
Location	Headquartered in Chicago, Illinois; International
Product/Service	Switching and protection products and services for electric power transmission and distribution
Revenues	\$300 million
Year Founded	1911
Ownership	Privately held
Web Address	www.sandc.com

For graduate-level courses, employees are reimbursed at the same rate. But if S&C employment terminates before the end of three years, the reimbursed expenses must be repaid on a sliding scale dependent on length of employment after receiving the reimbursement.

Competency-Based Certification Programs

S&C's training programs for production employees are a good example of the company's approach to career development. All the programs can lead to certification exams, which are administered by the company's Training Services team. Certification leads to promotions and pay increases. (The competency standards for certificate programs have been developed and copyrighted by S&C for each critical skill area.)

The programs offer multiple levels of achievement reached through a combination of classroom studies and on-the-job training. The S&C Machinist Training and Certification Program, for example, has eight different grade levels and can also lead to a degree when combined with technical courses at designated community colleges.

Participation in classroom studies is treated as paid time, and employees are allowed to adjust their work hours for study time. Qualified employees can place out of courses by passing proficiency exams, and demonstrating knowledge acquired from previous studies or experience.

Certification can also be earned through on-the-job training. Experienced workers pair with trainees and follow a systematic learning process that is guided by industry standards. When a supervisor agrees that an employee has reached an adequate skill level, they jointly request a certification exam. As mid-level employees are promoted and people in entry-level positions move up, the company recruits new trainees from area trade school graduates, high school interns, and internal transfer candidates.

Machine Operator B	Basic Aptitude Test	Labor grade 8
Machine Operator A	Courses: Basic Shop Math, Blueprint Reading, Geometric Dimensioning and Tolerancing (GD&T), Introduction to Metrology	Labor grade 7
Machinist B	Courses: Machine Tools, Introduction to Metallurgy, Dimensional Metrology. Certification in Machine Set-Up and Operation	Labor grade 6
Machinist A	Certification in Set-Up and Operation of 2 or more Machine Types	Labor grade 5
Senior Machinist B	Courses: Applied Blueprint Reading and GD&T II, Quality Control and Assurance, Applied Math. Certification in Set-Up and Operation of 2 Machine Types	Labor grade 4
Senior Machinist A	Certification in Set-Up and Operation of 3 or more Machine Types	Labor grade 3
Master Machinist	Completion of one of following Associate Degree Programs (off-site): <ul style="list-style-type: none"> • Manufacturing Technology: Multiple Spindle Machining (Richard J. Daley College) • Manufacturing Technology: Machinist (William Rainey Harper College) • Manufacturing Technology: Computer Numerical Control Machining (Oakton Community College) • Machine Tool Technology (Triton College) 	Labor grade 2

Peers as Instructors

One interesting aspect of S&C's training process is that some programs are taught by the company's own employees. This system evolved slowly, as HR and employees grew increasingly dissatisfied with outside trainers. "Our products and processes are

very specific," explained the Manager of Training Services. "Our people know our history and our products very well. When peers do the training, they are more apt to see connections between classroom studies and practical applications and share their experience. There is sometimes a gap when outside instructors teach here. They just do not know our business." As one employee commented, "Because the trainers all work in the field, they can fit the material into the big picture. It is not just what is in the book. It is how it relates to our jobs."

To develop their teaching skills, the company helps peer trainers, who are usually recommended by their supervisors, learn "best practices" teaching strategies. All peer trainers must complete the course they will teach at least three times: once as a student, the second time as an assistant to the instructor, and the third time as the lead instructor with an experienced instructor assisting. Their learning process also includes videotaped feedback with peers, "train-the-trainer" sessions, and informal networking meetings with other instructors to share ideas and techniques. Employee instructors are paid for their time, and once

and reduces training costs, it also improves the learning process. Employees, as students, respond more positively to instructors who are fellow employees and see the instructors as role models.

Company leadership believes the program provides a perfect means for potential new supervisors to prove themselves. Peer instructors grow in confidence, improve communication and presentation skills, learn how to deal with different personalities, and broaden their experiences within the company. "Some people we have put in this environment have done radical turn-arounds. They blossom," said one manager.

Leadership Vision and Commitment

Company leadership conveys a key message to employees: "There are many opportunities for those who want to be challenged and build a career at S&C." They view employee development as a long-term proposition that benefits everyone. Employees advance on career paths built on their skills and knowledge, and the company gains skilled workers.

"S&C's training programs help us to be more competitive. Our employees have greater knowledge and better skills, resulting in higher quality work and increased productivity. Employees who are in the continuous improvement mode are more receptive to change and can be agents of change. And, through training and education, they can expect new career paths, promotions and increased compensation. All of this means employees feel better about themselves, their jobs, their company and our customers. Everybody wins."

*John W. Estey, President & CEO
S&C Electric Company*

Even though nearly all internal training takes place on company time, supervisors rarely deny employee requests for training. At S&C, it is the role of the immediate supervisor, not the human resources organization, to schedule employees for courses and find replacements while they attend classes. This can place a burden on supervisors as they juggle competing work demands, and some have acknowledged that this can result in short-term losses of productivity.

a year they are honored at a recognition dinner attended by the President & CEO and other members of S&C's senior leadership team. Currently, S&C has approximately 45 peer trainers drawn from all areas of the company.

Using staff as instructors not only focuses the curriculum on company needs

The company's emphasis on cross-training and promoting from within, which creates a lot of movement, especially in operations, can also become a burden for supervisors as they lose employees to other departments. "I lose people constantly to other parts of the company," said one manager, "usually my two best people every year. But it has never bothered me.

I would rather have a bunch of people working for me who want to come to work than have employees who don't want to be here. When that happens they break equipment, call in sick, and think the job is boring."

In further support of this system, some managers spoke of their desire to mentor others and to "give back" to the company because they rose through the ranks in the same way. Others spoke pragmatically that having employees skilled at operating a wide variety of machines ultimately makes their own jobs easier. "Supervisors who are aggressive in training their people help themselves in the long run."

As Cottini explained, "Philosophically, at S&C, we believe that if we have a good employee who is working hard but is not fulfilled or satisfied in their current job, we will help him or her find another path within the company. It is worth it because this individual is a known entity, we know their work ethic, behaviors, and attitude."

Several managers and employees also extolled their President & CEO, John Estey, for the supportive environment. They see him as someone who has a genuine interest in the well-being of the workforce, who commits adequate resources toward training and development activities, and is accessible to employees.

Performance Includes Learning

Performance reviews are strongly tied into S&C's career mobility system. Learning goals are mandated and completion is assessed as part of performance evaluations. Some employees in critical fabrication roles must take at least two classes per year. "The way we look at it," explained Cottini, Manager of Training Services, "is that if we are to continue to move ahead as a company, each one of us has to recognize our responsi-

bility to act as agents of change both personally and within our areas of influence at work. Continuous improvement is one of the guiding principles of S&C Electric Company."

Performance reviews of supervisors and managers include evaluations of how well they prepare their staff for advancement,

In 1998, Cori Bridegroom came to work at S&C on one of the company's most basic machines with training provided by co-workers. Not wanting to continually ask others for advice and realizing that she liked the work and wanted to learn more machines, she signed up for the on-premises classes offered through the company's Technical Training Institute.

Cori successfully completed six on-premises courses and was trained and certified on three different types of sophisticated, computer numerically controlled machines. As a result, she has received consistent promotions and pay increases. Her current job title is Senior Machinist A on the company's continuous work schedule (four days on and four days off). During her free time, she has begun studies at the College of DuPage with the intent to qualify her as the first S&C employee to achieve the distinction of Master Machinist.

another sign of company support of the learning system. "If people with potential aren't advancing at an acceptable pace, we work with the supervisor to develop a plan to move them along," explained one senior vice president. "The key is keeping people challenged. If one supervisor can no longer do it, maybe someone else can."

Assessing Effectiveness of Learning

Because the company invests significantly in its training and education activities, leadership is very interested in measuring its impact. HR conducts a basic evaluation of trainees after each class, continuously making changes based on trainees' feedback. HR also assesses in what ways employees apply their learning on the job. Anecdotal evidence from supervisors and employees shows that education is paying off. The Training Services team is now working on ways to quantitatively measure the impact of training. Currently, the firm

tracks productivity, quality, and scrap data, along with information on safety and overall employee retention rates. All of these, in varying degrees, have been shown to be positively influenced by training.

In this age of short-term focus and the desire for immediate profits, S&C takes a refreshingly long-term approach toward its business. "We are privately owned so we have more freedom from Wall Street than most of our peers," said one senior manager. "Every day we ask ourselves, how will the decisions we make today affect this business in 15 or 20 years? We need to think in terms

of the impact our actions will have not just in this quarter but on the long-term health of this organization and the people that are so critical to it. At the end of the day, we are all in this together."

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COMPANY SNAPSHOT

STRATEGY USED	PARTICIPANTS			
	Management/ Supervisors	Technical/ Professional	Frontline Workers	Part-time Workers
Tuition assistance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
On-site workshops and training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Financial support for attending off-site classes, seminars, workshops and conferences	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Training/education on company time (on- or off-site)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Online learning	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Individual Development Plans linked to performance evaluations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Career counseling	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Formal mentoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Job shadowing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>