

# Growing a Literate Workforce, *Simpson Reads Right*

*"Being able to read is so fantastic! It's the best high I've ever had. It's just a new beginning is what it is. It's like being reborn."*

*Bob Drogmund, Chip Scow Scheduler, Fir and Hemlock Division*

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Dr. Dee Tadlock, Barbara W. Hinck,  
and Sandra Miller

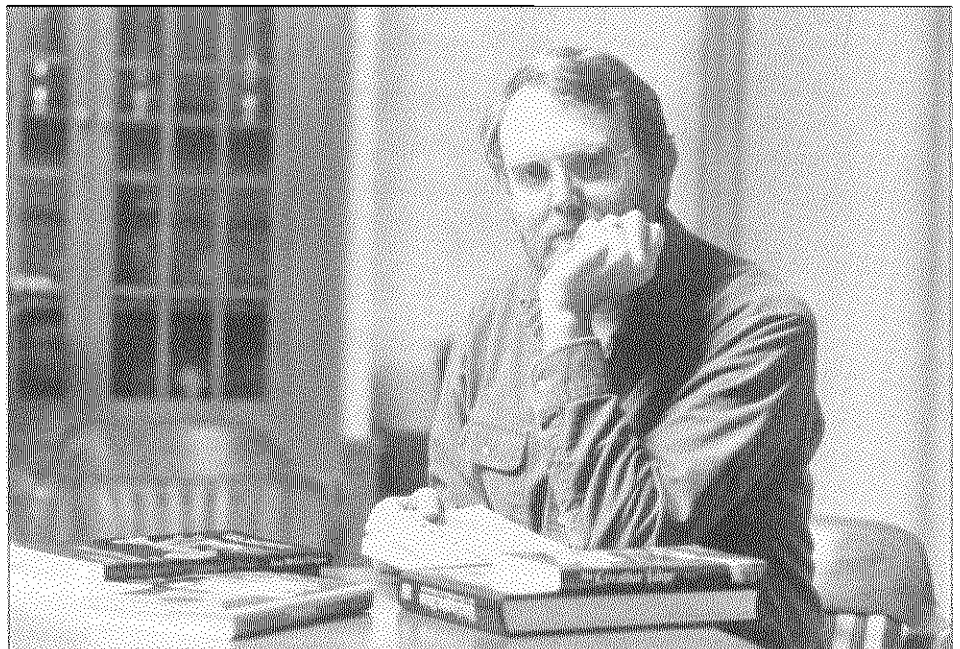
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Fresno, CA, 1958. A ten-year-old boy waits to board the bus that will take him to his grandparents in Olympia, WA. An elderly man with a crumpled paper in his hand tentatively approaches the boy. "Please, can you help me? I can't read, and I need to know which bus to get on. My son wrote the directions here."

The boy felt trapped. He wanted to help so badly, but he couldn't. He didn't know how to read either.

As years passed, Ken's parents would send the boy to private schools and tutors in unsuccessful attempts to solve his reading problems. Nothing worked. Finally, in high school, clinicians at the University of California, Los Angeles (UCLA) diagnosed Ken as dyslexic. He attended UCLA's famed Fernald Reading Clinic for more than one year, but as before, did not learn to read. In spite of his difficulties with reading, he managed to graduate from a public high school. Many of his teachers did not know he could only read at a second grade level.

So Ken began adult life as a virtual non-reader. He found a job in Simpson Timber Company because reading was not required to set chokers in the woods or to pull lumber



*Ken Reinertsen, Head Sawyer, Simpson Timber's Olympic Plywood Plant.*

*Photo supplied by Simpson Investment Company.*

from the green chain. And along the way he collected the painful memories that accrue to adults who can't read well: He could never read to his daughters as they were growing up; he couldn't buy his wife anniversary cards; he lived in constant fear of being "exposed;" he held back in every situation so his secret would not be discovered.

An excellent worker, Ken moved through the ranks at Simpson, becoming an informal

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*"...doing harder and faster what isn't working well enough is rarely the answer to a problem. It's the system that must be changed."*

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Paul Everett

leader in the workplace. Managers recognized his leadership abilities, and he was asked to apply for a supervisory position. Ironically, his own intelligence and hard work had placed him in a position of having to expose his weakness. He went to the personnel director and swearing him to secrecy, confessed that he could not read. Stunned, the personnel director did not believe that Ken, an outstanding employee, a natural leader, could not read.

Seattle, WA, 1991. A man confidently steps from an airplane at SeaTac Airport. Inside the terminal, he notices an elderly Japanese couple standing in apparent confusion, and asks if they need help.

Realizing that they do not speak English, he motions them to follow. He guides them back to the main terminal, reading signs along the way. Once inside the main terminal, he scans the area until he notices a Travelers' Aid sign and escorts the grateful couple to the booth.

Heading toward the parking garage, Ken remembers the ten-year-old boy who thirty years before was unable to assist the elderly traveler in the Fresno bus station. "I'm not hiding anymore," he smiles.

What happened to Ken? How did he learn to read after all these years?

### **Simpson's Literacy Program**

In 1990 Ken's employer, Simpson Timber Company of Shelton, WA, began a pilot literacy project. Involved in a major program to bring the company to world-class manufacturing standards, the company had planned to use teams as the critical vehicle for achieving total employee involvement. But a lack of literacy skills in the workforce was a major stumbling block to the establishment of smoothly functioning teams.

Paul Everett, Operations Improvement Division manager, realized that he needed to establish a literacy program that would enable Simpson's employees to become competent readers as quickly as possible. Everett explains the criteria for his search: "I have always been guided by the assumption that doing harder and faster what isn't working well enough is rarely the answer to a problem. It's the system that must be changed. Applying this principle to my search for a literacy program, I was determined to find something different from the type of reading instruction through which our employees had failed to learn to read in the first place."

Everett's search resulted in a pilot study in one of

Simpson's sawmills to test the effectiveness of the READ RIGHT™ system, a fundamentally different approach to teaching reading. Dee Tadlock, Ph.D. reading specialist, developed the system when conventional reading instruction failed to solve her own son's serious reading problems.

Simpson wanted its employees to view the literacy program as an opportunity rather than a threat, so they decided not to formally assess employees' reading abilities. It was assumed, based on national statistics, that at least 20 percent of the workforce was functionally illiterate. The challenge was to design a system that would effectively encourage employees with reading problems to step forward to participate in the *voluntary* program.

### **Getting the word out**

Most adults who cannot read as well as they would like have someone at home who reads for them, so Simpson sent a letter containing information about the reading program to each employee's home. Flyers advertising the program appeared in strategic spots throughout the pilot mill, and employees were told at crew meetings that informational meetings concerning a new reading program the company was offering were coming up.

The informational meetings were actually recruitment meetings. They were mandatory for each crew (15-30 employees) and were held on company time. The on-site project coordinator, a company employee who had been selected to implement and manage the program (a half-time position), told each crew why the company was offering the program.

A 40-year-old student from a previous workplace literacy program where the READ RIGHT system had also been used recounted his experiences. Speaking with emotion and candor, the student explained what it had been like to function in the world and in the workplace with poor reading skills and what it was like after his reading problems had been solved. Starting off reading at a 4th grade level with difficulty, after only 50 hours in the program, he left with a college-level reading ability.

As the formerly functionally illiterate adult spoke, the audience listened intently; many heads nodded subtly as if to say, "Yes, that's happened to me too. I've been there. I've walked in his shoes."

Next, the developer of the program, who had been hired as a consultant to assist in implementing the pilot project, explained why the program works so much faster than conventional reading programs and defined whom

the program would help. The project coordinator then invited students to sign up for assessments for placement into the program and stressed that their privacy would be respected at all times. The students could choose to sign up immediately following the meeting, or they could phone anonymously.

### **Volunteer Tutors Key to Program Success**

The program was implemented by volunteer tutors; instruction was one-on-one and on the employee's own time. The learning center was located off site, easily accessible and private. Employees were asked to come for tutoring twice a week for an hour; every attempt was made to schedule the tutoring session at whatever day and time were most convenient for the student.

•To our amazement, many employees came forward to sign up for assessments at the end of the recruitment meetings; others phoned in for appointments. About 10 percent of the workforce of 250 voluntarily participated in the pilot project.

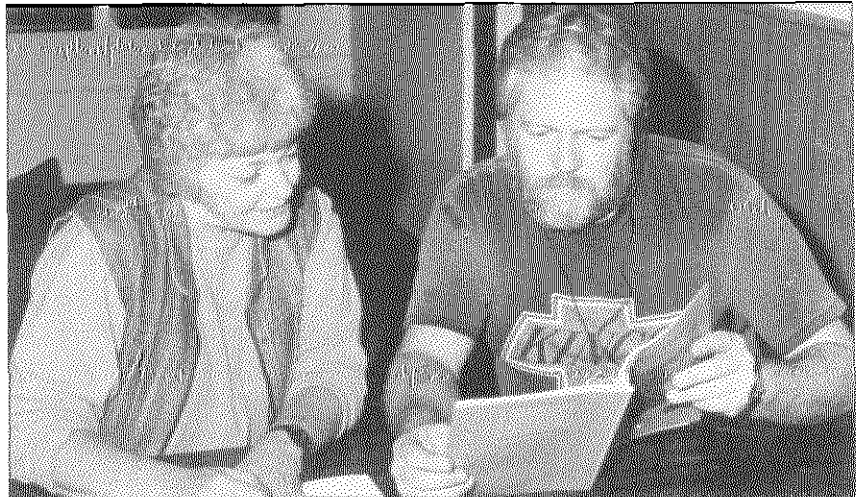
Volunteer tutors were recruited primarily from the community at large; a few were Simpson employees or Simpson spouses. They represented a wide range of backgrounds and experiences. Prior teaching experience or a high level of education were *not* required. The key ingredients for a successful tutor were caring concern and a desire to be actively involved in helping others.

All tutors received eight hours of training in how to implement the reading program and a one-hour orientation familiarizing them with the management system. Each tutor was asked to commit a minimum of two hours per week to the program for the duration of the pilot period (three months).

During the first couple of tutoring sessions, tutors were coached as they were implementing the program with their students. Once they felt comfortable, they were left on their own. The project coordinator (quarter-time position) was charged with the responsibility of scheduling tutoring times, being a trouble shooter, and assuring quality implementation. Periodic tutor meetings for collaborative problem solving and continuing in-service training were held.

### **Pilot Results**

During the initial assessment procedure, the students' reading abilities had been determined by listening to them read successively more difficult passages. Because the grade level of each selection had been pre-



*Linda Owens, Roll Handler (tutor), and Alan Sewell, Electrician*

determined, it was possible to define the grade-level ability for each student.

The types of errors the students made during their oral reading were noted in detail. Ken, for example, the man from our earlier story, was reading in a very stilted, slow, word-by-word fashion and inserted words that rendered the text meaningless. He also dropped endings from words and omitted articles so the language produced during reading sounded awkward.

The same assessment procedure described above, using different passages, was used at the end of the three-month pilot study to assess students' growth in reading. The average instructional time required for one year's gain in grade level was six hours. The national standard, as defined by the U.S. Department of Education, is one year's gain per 100 hours of instruction. (See Figure 1 on page 12.)

With such encouraging gains, Simpson Timber Company chose to expand the reading program. The first expansion was simply to open the program to employees in the other divisions of the company located in Shelton, WA, the company's headquarters and site of the pilot study. The recruitment process described above was repeated except that now the company had its own "champion" for literacy; the former student who told his personal story was a Simpson employee, a graduate of the pilot study.

The next step was to take the program to the McCleary Door plant, a one-half hour's drive from the Shelton mills, and to the Northern California logging and sawmilling operations. The closer site was chosen first to facilitate trouble-shooting as we fine-tuned the model. Our plan was to devise a system that would allow the literacy program to be transported to other sites which would be made self-sustaining as quickly as possible.

We wanted to give enough initial help and follow-up to assure success, but we did not want to create a situation where the company would be dependent on outside consulting for a long period of time. Currently the Timber model is being implemented in Simpson's paper and pipe manufacturing divisions.

### **Learnings**

From our experience replicating the literacy project in other sites, we have learned:

1. For a project site to become successful, independent, and self-sustaining, consultants must be on-site for the first three weeks of implementation to provide in-depth training in all aspects of the program. Periodic follow-up during the first year is recommended for coaching and trouble-shooting.
2. Project manager and tutor coordinator jobs can be combined into one position. The project manager works full-time for the three weeks the consultants are on site and the subsequent three week start-up phase. After the first six weeks, a program large enough to service a total work force of about 250 employees requires a half-time manager.
3. The on-site project manager needs ample clerical support to allow his/her full attention to be focused on maximizing the learning opportunities provided by the consultants during the times they are on site.
4. The recruitment meetings are *not* as successful if they are held wholly or partially on the employees' own time. Meeting in small groups, maximum 30, is also more successful — large groups intimidate employees with reading problems who might want to step forward.
5. When assessments are conducted on company time, more employees participate in the process.
6. Recruiting sufficient tutors *in advance* is essential for the success of the program.
7. The implementation must be well organized to proceed in a timely manner; there is a tendency for students to lose their nerve and choose not to begin when there is too much delay between assessment and the start of tutoring sessions.
8. The consultants should make a pre-visit to the implementation site to inform managers fully about the program, to provide an overview of the implementation process, and to enlist management, supervisory and union support for the project. Managers need to

make some key decisions to guide the implementation process; these can be made during the pre-visit. (Examples: scheduling of recruitment meetings, policy decisions regarding on-time or off-time assessments and/or tutoring, location of the learning center, naming of the project coordinator, etc.) During the pre-visit, project coordinator training also begins, and steps are taken to begin the tutor recruitment process.

### **9. Critical issues for success are:**

- visible and consistent managerial and supervisory support for literacy efforts
- respect for the students and an assurance of anonymity for all participants.

We cannot overstate the importance of sensitivity to the emotional impact of being an adult with a reading problem. It takes tremendous courage for adults who do not read as well as they would like to come forward and reveal a secret they have been hiding all their lives. As one of our students expressed it: "I felt hurt and lost a long time. I was always so afraid that someone would find out I couldn't read. My secret would be revealed; I would feel naked."

Adults with reading problems have become convinced that they will never learn to read — after all, they have tried repeatedly and have failed in each attempt. Consequently drop-out rates in literacy programs are high if students do not experience immediate success.

Conversely, if they do experience immediate success, self-motivation will be very high, and drop-out rates will be low. This is why the reading program utilized in a literacy project must yield excellent, rapid results.

Simpson Timber Company chose READ RIGHT™ because it was supported by a strong data base showing exceptional results and because it represented a fundamentally new way to teach reading. The manager of the training division in Simpson believed that the assumptions underlying the methodology are well-founded and that they account for its success. What are these assumptions?

1. *If you can talk you can read.* The processes of talking and of reading require the same integration of knowledge of the world, of language, and of sound systems.
2. *If a person is not learning to read, the problem is in the system of instruction, not in the learner's ability.*

3. *Reading is a process of answering the question, "What did that say?" rather than "What is that word?"* The brain uses significantly different strategies to answer these two questions. Identifying words is not reading; identifying meaning is. Reading instruction that has a goal of helping learners identify words will *not* be as effective as instruction designed to assist a student develop strategies focusing on meaning.

The program structures the learning environment in such a way that the tremendous potential for learning inherent in virtually every person's brain is unleashed.

### ***The brain as an "instruction sheet"***

A productive way to think about what the brain must do in order to learn to read excellently is to use the metaphor of an "instruction sheet." The brain that can read excellently can do so because it has an instruction sheet for reading that works well. Since no one is born knowing how to read, it is obvious that the instruction sheet for reading must be created by the reader. In fact, the process of learning to read is the process of building an appropriate, productive instruction sheet for reading.

A brain that has not learned to read or that has learned to read in only a laborious, word-by-word, error-ridden fashion, has an incorrect instruction sheet for reading. The task for such a reader is to reject this incorrect instruction sheet and to build in its place a correct instruction sheet that results in smooth, fluent, excellent reading.

The program structures the learning environment so that:

- the student's brain is compelled to confront the errors in its instruction sheet for reading;
- the student is helped to define the nature of the errors;
- the student is provided with all the information he or she requires to figure out how to construct an appropriate instruction sheet for reading.

### ***Three components***

READ RIGHT™ has three separate components, each of which plays an essential role in the ultimate success of transforming the poor reader's incorrect instruction sheet to a correct one. In the first component, the learner's brain is provided with a continuous input of meaningful print, the raw material of reading. The student is then challenged to read aloud beautifully to the

tutor. This process encourages the reader's brain to experiment with strategies emphasizing meaning rather than isolated words.

In component two, as the learner reads aloud, his/her erroneous instruction sheet causes errors in the oral reading. A student can make three types of reading errors:

1. *semantic* — "The boy bounces the bell;"
  2. *syntactic* — "I was walk the dog," or "Keep away to me."
  3. *graphophonics* — The text says: "The boy was happy;" the reader reads "The boy was heavy."
- In addition, the reader can be "stuck," that is, unable to proceed.

The tutor categorizes the type of error the student makes in oral reading. He or she has been trained to analyze the errors from a perspective of what reading strategy should have been employed to prevent the error in the first place. The tutor's feedback will "coach" the brain into utilizing more appropriate strategies.

It is through this interaction that the brain discovers what corrections are needed in its erroneous instruction sheet for reading. The instruction is totally individualized; instruction is only given in response to the learner's specific errors, a feature accounting in part for students' rapid progress.

Finally, in component three, home reading materials of appropriate difficulty provide an opportunity for each learner's brain to experiment with reading strategies being discovered in the other two components and to do necessary fine-tuning of these strategies.

In a typical one-hour tutoring session, the tutor reviews the student's progress in home reading, records the information on provided tracking sheets, and helps the student set home reading goals for the following week.

Next, the student listens to a pre-recorded book that has been carefully selected to be at an appropriate level of linguistic complexity to provide the optimal cognitive confrontation for the individual student. Once the student judges himself to be properly prepared, he reads it aloud to the tutor, who judges whether the desired outcome — beautiful reading — has been achieved. This process normally takes two-thirds of the allotted hour.

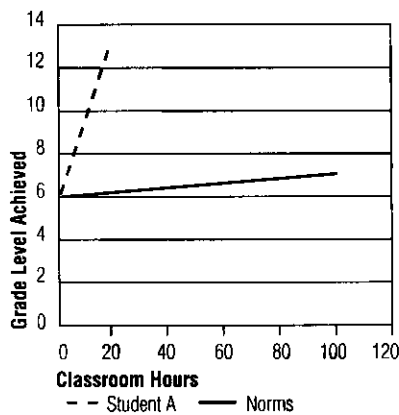
During component two, the student reads aloud from unfamiliar material ("cold" reading) at a level that will ensure sufficient errors are made to allow necessary

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*"Every man who knows how to read has it in his power to magnify himself, to multiply the ways he exists, to make his life full, significant and interesting"*

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Aldous Huxley



**Demographics:**

Male Student Age: 53

9th Grade

Start Date: 1-24-90

6th Grade Instructional Level

Graduated : 5-3-90

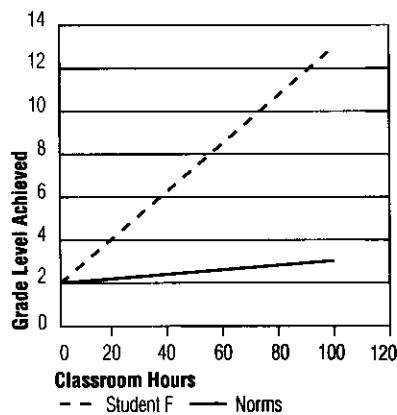
13th Grade Level

Total Hours: 19

Advancement: 7 grade levels

Average time for advancement:

2.7 hours/grade level



**Demographics:**

Male Student Age: 42

High School Graduate

Start Date: 1-22-90

2nd Grade Instructional Level

Graduated : 5-20-90

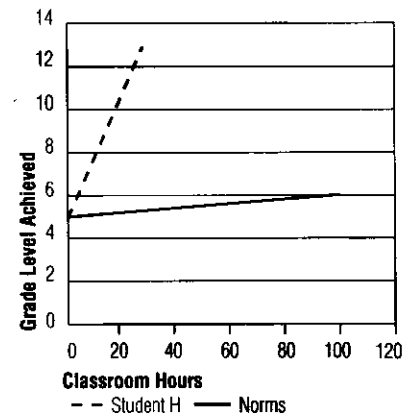
13th Grade Level

Total Hours: 100

Advancement: 11 grade levels

Average time for advancement:

9 hours/grade level



**Demographics:**

Male Student Age: 57

High School Graduate

Start Date: 1-22-90

5th Grade Instructional Level

Graduated : 11-14-90

13th Grade Level

Total Hours: 32

Advancement: 8 grade levels

Average time for advancement:

4 hours/grade level

**Figure 1.** National Norms: U.S. Office of Education

coaching, but not so many that the reader becomes frustrated. As described above, the tutor responds to each error as it occurs, "coaching" the reader to employ reading strategies that will integrate the appropriate meaning, language, and phonics information demanded by that particular reading environment. Component two normally takes one-third of the tutoring hour.

Although the theoretical basis of the system is relatively complex, the implementation procedure is simple. It is easy to replicate once an initial understanding is achieved and the management system is learned.

**Long-term Benefits**

Some benefits of a workplace literacy program are obvious. Communication breaks down and time is lost when workers can't read letters from managers, memos, messages on blackboards, newsletters, etc.

Steve, a millwright at Simpson Timber Company, reads his work orders each day. He organizes the requests according to priority, looks parts up in the book if necessary, and goes competently about his tasks. Nothing unusual about this, right? Wrong. One year ago Steve was a total non-reader. The other millwrights he works with never suspected Steve had a problem; he was skilled at covering up. On occasions when he was unsuccessful at "conning" others

into doing the reading for him, he would seek out the one trusted friend at work who knew of his problem. When that friend was not at work, Steve would literally hide out, or he would pretend he mislaid his work orders and would spend the shift helping the other millwrights instead of filling his own work orders. Obviously, there were times when Steve had very unproductive, anxious days. Those days are gone forever for Steve. "Now I can read the work orders with no problem," he says with a quick grin.

Other employees have also told of being empowered in their abilities to communicate as a result of acquiring literacy skills.

When procedural or technological changes that affect workers' jobs are made in manufacturing plants, the new information is often communicated in print. Those who can't read manuals, booklets, etc. are at an obvious disadvantage in learning the new way. The company also sustains an opportunity cost loss while the employees climb the learning curve more slowly than if they could read well.

Shane, an electrician, had been able to read for as long as he could remember, but he always felt uncomfortable when he read; often he had to read something several times to understand it. Predictably, Shane avoided reading as much as possible. After participating in the Simpson literacy program for only eight hours, he said: "At work we have

two new machines, and I understood the manuals the first time I read them. Before I would have had to read them four or five times."

Workers who can't read safety signs and safety information constitute a danger to themselves and others. Accidents caused by an inability to read contribute to high insurance premiums and lost-time.

Matt, an off-bearer in the mill, is supposed to turn the saws on and off, but he couldn't read the information on the breaker switches. After solving his reading problems in the company literacy program, he said, "I can find the lock-out switches easier now because I can read what they say. Before I hesitated doing that because I didn't want to pull the wrong breaker. I held back and let someone else do it." Matt was lucky. The accident that was waiting to happen didn't, and now he can read, so it is not likely to happen in the future.

Poor reading skills negatively affect an employee's ability to contribute. Conversely, student participation in a successful workplace literacy program enhances competence in reading-related activities and allows each employee to contribute fully.

Other benefits that accrue to a company as a result of providing the opportunity for its employees to learn to read or to improve their reading are less obvious:

- a belief in one's ability to solve problems.
- an increased willingness to share ideas with team members and co-workers.

Ken Reinertsen, head sawyer in the Plywood Division, was an opinion leader. When Simpson initiated its continuous improvement program, he accepted a position as team leader. No one knew he couldn't read. He felt very uncomfortable in the position. "I was in constant fear that I would be discovered. I didn't want anyone to know I couldn't read. It interfered with my effectiveness. I couldn't read to learn the latest information and bring it back to the guys on my team. I resigned my position as team leader. I have always felt that it was my fault that our team didn't do better. I still feel responsible."

Ken's third-grade reading level had precluded his reading books that would help him understand the new world-class manufacturing principles that he found intriguing. He had been carrying around a copy of Eli Goldratt's *The Goal* since a company trainer gave it to him two years before. Periodically, he would try to read it, but always gave up in frustration. After three months in the company literacy program, he read *The Goal*, and since that time, he has read more than a half dozen books on world-class manufacturing including, *Before It's Too Late*, *Zapp*, *One-Minute Manager*, *The Art of Leadership*, *Total Quality Control*, *Japanese Style*, and *Better Makes Us Best*. Ken

## About Simpson Timber Company

2200 employees, 11 plants

Most employees have been with the company for a decade, many third generation. Founded by Sol G. Simpson with "50 men and 12 horses," the company grew to an international forest and building products company with operations in more than nine states. Simpson Timber company celebrated its 100th anniversary in 1990, the second oldest continuously operating forest products company in the Pacific Northwest. Simpson operates three subsidiaries under a holding company, Simpson Investment Company of Seattle. Simpson Timber owns more than 769,000 acres of forestland; the company was one of the first to retain its logged lands and replant them for future generations.

has recently volunteered to be on his plant's safety committee.

- an increase in "brain power" focused on problem solving

Kyle was a millwright, and like many adults who have reading problems, was hard to get along with at work. Years before as a child he had learned to be a bully as a way of hiding his failures in reading, and he was still doing it. He had a reputation for being argumentative and hard to get along with. In his Army reserve unit where he was a master sergeant, that kind of behavior was expected. At work, his co-workers stayed out of his way, and that was just the way he liked it; it was easier to hide his deficiencies. After 42 hours in the literacy program, Kyle advanced from a sixth grade reading ability to a 12th grade ability. He began speaking up at crew meetings and sharing his ideas. One co-worker said about Kyle, "He is easier to get along with than he was before he improved his reading. He used to hide behind his gruff exterior."

Because his ideas were good ones, the "new" Kyle was eventually asked to serve as his crew's representative on the Fir and Hemlock Division safety committee, which he accepted. "I'm not afraid to stand up in front of my fellow workers and read a memo any more."

Because of the high caliber of his contributions on the committee, he was elected co-chairman. During a Safety Mini-Conference, Kyle was one of six serving as panel members to discuss key safety issues. The panel was well received, and Kyle's contribution to its success was acknowledged: he has been asked to serve on a similar panel for a Safety Conference in Oregon that will be attended by employees from Oregon, Washington, and California. "I would never have had the confidence to accept the co-chairman position or to serve on that first panel if I had not solved my reading problems," said Kyle.

- soaring self-esteem resulting in a willingness to risk change.
- a higher degree of enthusiasm and an increased willingness to contribute within the work environment.

Bob Drogmund was reading at sixth grade level when he

entered the Simpson literacy program, and although he was a natural leader, had been active in the union, and was sought out by the other employees for guidance and advice in union-related activities, he hung back and did not seek key leadership roles in the union. Once the reading problem was solved, Bob agreed to run for a position on the executive committee of the union.

Bob has also written articles for his division's newsletter since graduating from the literacy program. "I know a heck of a lot more about the company than I did before."

Participation in a successful company-based literacy program fosters feelings of cohesiveness, caring, and esprit-de-corps among employees in the program and creates a strong bond between them and the company by demonstrating in a visible way that the company cares for its employees.

A literacy program that utilizes community volunteers as tutors also provides an important public relations link to the community. Outsiders see first-hand that the company values the individual, regards people as an important asset, and realizes that the best way to achieve continuous improvement for the company is through fostering employees' personal growth and development.

If companies are to compete, they need to tap into the creative minds of *all* employees. Only then will there be sufficient ideas generated to assure continuous improvement in quality and productivity. Clearly, in a global economy, a workforce partially comprised of functionally illiterate employees can no longer be tolerated.

Employees like Bob whose lives have been transformed as a result of learning to read are eloquent spokespersons for the power of workforce literacy programs: "Being able to read is so fantastic! It's the best high I've ever had. It's just a new beginning is what it is. It's like being reborn."

*[Although the incidents related in this article are true, the names of individuals have been changed (except for Ken Reinertsen and Bob Drogmund) to protect their privacy. Anecdotes in the article are used with the express permission of the individual involved.]*

*Dee Tadlock earned her Ph.D. in reading in 1978. A partner and developer of READ RIGHT™ Systems, she helps companies create workforce literacy programs and improve existing ones.*

*Barbara Hinck is READ RIGHT Program Manager for Simpson Investment Company, where she is responsible for implementing workforce literacy programs in the company's paper and pipe operations. She has also worked on Simpson Timber's value adding management and employee involvement. She holds a joint degree in journalism and sociology from Syracuse University. Sandra Miller was Simpson Timber's workforce literacy project manager. A graduate of Washington State University, she now works with the community literacy program. She serves on the Shelton School Board and chairs the Education Committee for the Mason County Economic Development Council.*

Barbara Hinck, Ken Reinertsen, and Dee Tadlock will be speaking on Wednesday, October 7 at the AME 1992 Annual Conference in Atlanta, GA.

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For information on reprints, contact:  
Association for Manufacturing Excellence  
380 West Palatine Road  
Wheeling, IL 60090  
708/520-3282

