

Knowledge Transfer

Preserving Your Secret Sauce



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STEVE TRAUTMAN

Founder & Principal—The Steve Trautman Co.
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www.SteveTrautman.com
phone: 206.547.1775

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Executive Summary

Few organizations can say with any degree of certainty that they will have the workforce they need to hit their strategy 1 – 3 years from now. Over the past two decades, a new field has emerged to assess and methodically reduce talent risks, and to enable an organization to protect its “secret sauce”—the unique and vital knowledge that keeps the day-to-day operation in motion, drives creativity and innovation, and sets it apart from the competition. We call this field knowledge transfer.

Definition: Knowledge transfer means replicating the expertise, wisdom, and skills of critical professionals in the heads and hands of their coworkers. Although knowledge transfer is often associated with on-the-job training and mentoring, it means more than this. Simply put, it moves the right skills at the right time to keep a workforce prepared, productive, innovative, and competitive.

Knowledge transfer includes the measurable transfer on-the-job of both explicit skills as well as implicit or tacit knowledge. The key issue for us is: if knowledge transfer is how people learn to do their jobs, what can we do to make the critical, high priority knowledge transfer happen faster, with less stress, and with greater predictability and consistency? We can help our experts to replicate their secret sauce by intentionally answering four big questions for them: What knowledge and skills should you be teaching? When should you teach it? Who should you teach it to? And, how can you teach it best?

Eight Common Knowledge Transfer Misconceptions:

1. **“We’re different—our knowledge is too complex, specialized, instinctive, political, situational, tactile [add your favorite adjective here] to be transferred.”**—No, any expert’s knowledge and wisdom, from any line of work, can be packaged and measurably transferred, so long as the apprentice has the capacity to learn it.
2. **“We already have knowledge transfer covered.”** Rarely true. What’s more likely—for the few organizations actually tackling this program—is that you have an existing knowledge transfer program that is not being measured, which means you don’t really know if you’ve got it covered.
3. **“We’re just too busy. Our experts can’t take time out for a ‘formal’ or concentrated knowledge transfer effort.”** The process is quicker than you think. And, if replicating your experts’ skills to reduce risk is deemed a critical priority, then you have to prioritize and efficiently weave this work into the tasks your experts already undertake.
4. **“Our experts don’t want to teach.”** Almost never true; they just need better direction and tools.
5. **“You need nice people with good social skills to be mentors who share their knowledge. Only a few of our experts are like that.”** The knowledge transfer process works independent of an expert’s degree of social skills.
6. **“Our experts are not even located in the same country as their coworkers. Knowledge transfer from a distance is too hard. We have to put people on planes to get anything done, and that’s expensive.”** Proximity helps but is not necessary for knowledge transfer. A clear framework for the knowledge transfer process usually mitigates distance problems.
7. **“Knowledge transfer feels like just another ‘flavor of the month’ corporate initiative and there are too many of those already.”** With talent shortages already hitting over 50% of America’s workforce, demographic data indicates that the need for knowledge transfer will remain of strategic importance for decades to come, and should warrant consideration at the top of your priority list.
8. **“Knowledge transfer is really an aging worker problem and our team has plenty of younger employees.”** An employee can leave at any time, so it’s a myth that having younger workers reduces your risk. The real risk is employees with unique knowledge that is siloed in your organization—or heading out the door.

Common Business Challenges Solved through Knowledge Transfer

Some typical applications for knowledge transfer in business today are: faster onboarding/ramp up to productivity; minimizing the knowledge loss impact of retiring workers; responding to emergency knowledge transfer needs, such as the unexpected loss of a critical expert; driving innovation; setting best practice standards and improving consistency; product training from a vendor to a customer; engagement and retention of Millennials; reducing safety incidents and worker attrition; load leveling to reduce overreliance on one expert; and working with offshore partners.

What “Good” Looks Like

Whether you are looking to develop an in-house knowledge transfer solution or hire out-of-house consultants to guide you, we hope you will be smart consumers of knowledge transfer investments. Good knowledge transfer programs should:

- Be simple.
- Clearly show workforce risks that could cripple an organization in the future.
- Be trackable over time. Models need to show how the risk is being reduced to maintain a ready, productive workforce today and down the road.
- Include a methodology and tool set, with clear outputs that anyone can read and understand within a few minutes.
- Drive a clear conversation about what knowledge needs to be transferred, who is to deliver it, and who is the recipient(s) assigned to receive it.
- Be independent of the degree of social or communication skills possessed by the person holding the knowledge.
- Be measurable.
- Foster a culture of knowledge transfer within the organization.

In Practice: A Road-Tested 3-Step Knowledge Transfer Process

For a practical, proven model that meets standards of good knowledge transfer—or for anyone who doubts such a model exists—we give you just a few paragraphs on how we at The Steve Trautman Co. solve these problems. In brief: we conduct a quick but thorough preparation and customization phase, then apply our 3-step Knowledge Transfer Solution— Step 1: Identify Risk (Knowledge Silo Matrix), Step 2: Create a Plan (Skill Development Plan), and Step 3: Learn to Act on the Plan (Knowledge Transfer Workshop).

Thoughts on the Future of Knowledge Transfer

What remains to be seen is how this new thinking will make its way through corporate America. For example: a) will executives continue to spend money on employee development without being able to show reduced risk? And predictions: a) competency models, demographic profiles, and headcount planning are headed for an “emperor’s new clothes” moment. b) We’re going to learn a lot more about knowledge transfer in regard to innovation and creativity. c) Opportunities will grow for partnerships between the fields of knowledge transfer and knowledge management and risk management. —And more.

A Call to the Community

As thought leaders in this space, we have sought to find the best and brightest knowledge transfer solutions. We’re really looking—and we want your help. If you have found, have heard of, created, or are involved with an innovative knowledge transfer solution that’s really doing the job—we want to know about you. We want to meet you, interview you, and share your stories and best practices. Because that’s the power of community.

Introduction

Headlines and research today tell us we're facing some of the greatest workforce productivity challenges, demographic shifts, and talent shortages in the last hundred years. Business productivity is at risk because of the double whammy of the aging worker crisis and the tendency of Millennials to change jobs more often. The turnover is a problem when employees leave or retire and their unique knowledge is lost. And it isn't just lost knowledge; fast-growing companies are seeing their workforces expand in short order, resulting in the need to rapidly onboard (and retain) scores of new employees. Mergers, reorganizations, and new technology rollouts also significantly change employee knowledge requirements and can further strain a workforce's productivity and ability to innovate in the critical short and mid-term.

Faced with these realities, how does an organization protect its "secret sauce"—the unique and vital knowledge that keeps the day-to-day operation in motion, drives creativity and innovation, and sets it apart from the competition? And, what are the risks if an organization can't?

As leaders, you manage other risks systematically and with great rigor. You manage risk of litigation with contracts and insurance, risk to operations with multiple suppliers and maintenance protocols, risk to health and safety by having protective gear and environmental sensors, risk to finance by having cash reserves and lines of credit, etc. Yet with all that you do in risk management elsewhere in business, you currently do not have a way to assess and methodically mitigate talent risk. Organizations stab at this problem with competency models, demographic profiles and headcount battles—or hope that a succession plan and dumb luck will carry them— but in the end few can say with any degree of certainty that they will have the workforce they need to hit their strategy 1 – 3 years from now.

With that backdrop there is some irony when we say, "People are our most important asset..."

For the past two decades, experts in business management, communication, and adult education have been grappling with this question of reducing talent risks, resulting in the emergence of a new field: knowledge transfer.

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Few organizations can say with any degree of certainty that they will have the workforce they need to hit their strategy 1-3 years from now.

What Is Knowledge Transfer?

Definition

Knowledge transfer means replicating the expertise, wisdom, and skills of critical professionals in the heads and hands of their coworkers. Although knowledge transfer is often associated with on-the-job training and mentoring, it means more than this.* Simply put, it moves the right skills at the right time to keep a workforce prepared, productive, innovative, and competitive.

Knowledge transfer includes the measurable transfer of both explicit skills—such as knowing the typical steps in a given process—as well as implicit or tacit knowledge—such as why the process is done, what could go wrong, who needs to be involved, which rules must be followed, what to look and listen for, how to troubleshoot the most common problems, and what outcomes or innovations should be shared with others in the organization.

The idea of coworkers teaching or mentoring one another while on-the-job is nothing new. Apprenticeships have been used to pass on trades from generation to generation forever. The concept is equally familiar to any knowledge worker who has taken on new responsibilities. All of us learn our jobs from the more experienced people nearby. In fact, studies have shown that, regardless of occupation, most adults learn their job roles through 10% classroom training, 70% on-the-job training and mentoring, and 20% other sources.**

Right now you might want to lump knowledge transfer in with one of the multiple other employee development programs we see in business—knowledge management, succession planning, new employee checklists, career mentoring programs, competency models, team to team rotations, formal job training, etc.—and happily declare, “We’ve got that covered.” If that sounds like you, ask yourself how well your current efforts have worked to preserve your secret sauce and reduce your workforce talent risks? Do you even have a way to tell? If your answers aren’t very satisfying, then read on.

The Need to Make It Easier on Everyone

For those of us working in the field of knowledge transfer, the key issue is this: if there is no denying that peer-to-peer knowledge transfer is how people learn to do their jobs, what can we do to make the critical, high priority knowledge transfer happen faster, with less stress, and with greater predictability and consistency?

In any given workforce, some expert employees will be “naturals” at sharing their knowledge; they just seem to be uniquely helpful and comfortable in explaining what they do. The results are clear: the apprentices of these experts are productive sooner and outperform their peers in similar roles. These apprentices are also often happier and more engaged—improving employee retention.

But in any given workforce, there will also be many experts who are not automatically good at transferring their knowledge—for example, among professionals that are highly analytical, highly specialized, curmudgeonly types. These experts might be willing, but often struggle with getting knowledge transfer right. For some, it is so bad that they appear to be unwilling, even to the point of actively withholding information.

The question is this: if there is no denying that peer-to-peer knowledge transfer is how people learn to do their jobs, what can we do to make the critical, high priority knowledge transfer happen:

- faster,
- with less stress, and
- with greater predictability and consistency?

At The Steve Trautman Co. we have worked throughout the better part of two decades to understand the mechanisms at play and we have isolated four big questions that these struggling experts repeatedly ask:

1.

“What do you want me to teach?” “I’ve been here a while. Don’t tell me to ‘teach everything I know...’”

2.

“Who do you want me to teach?” “Everyone here seems either disinterested or already busy themselves. I’m not sure if anyone is really expected to learn from me.”

3.

“When should I teach and transfer this knowledge?” “I’m buried under a lot of work all the time. How do I prioritize transferring knowledge relative to my other tasks?”

4.

“How should I teach so that they get it quickly and I can get back to work?” “I’ve tried to explain what I do in the past, but it doesn’t seem to work. My coworkers are so different from me, and some even get mad at me because I’m so bad at teaching.”

Any expert—in any industry or line of work—can teach what they know to others, if they have a good plan to follow and tools that show them how to teach.

Our approach to knowledge transfer at The Steve Trautman Co. has always been to take the mystery out of the process for others. Managers, experts, and apprentices need to be able to ask and answer the above questions in plain language. To that end, we’ve paid close attention to what makes some people more successful than others when sharing expertise. We’ve noticed what is frustrating, challenging, or otherwise getting in the way of moving knowledge around a workforce. And why do some organizations foster a culture of knowledge transfer better than others?

The results show that anyone—in any industry or line of work—can teach what they know to others if the expert: a) has the desired expertise to begin with, b) is willing, and c) has a good plan to follow and tools that show him or her how to teach.

For us, the roots of the field date to the early 1990s, when I was a young project manager working on Word for Windows at Microsoft. The software giant was hiring up to 50 people a week and needed to get them up to speed faster and with less impact on our internal experts who were already working long hours shipping software. Initially, I developed a knowledge transfer program, then called “Peer Mentoring,” as a solution to intense on-the-job training needs of my own team of software translators and localizers. As the program gained in popularity, I continued to develop and innovate the original ideas. I used what I was learning to write the original onboarding programs at Microsoft and then was asked to cofound the original training department in the Worldwide Products Group. After that, I founded a consulting firm in 1996 to be able to focus more fully on this work with other clients and industries. I’ll tell many of their stories in this paper and subsequently in my blog.

Myth-Busters: 8 Common Misconceptions

The development of the field of knowledge transfer and the application of its solutions has been hampered by a number of common misconceptions held by executives and emerging business leaders. Here are eight that we see regularly:

Misconception #1: “We’re different—our knowledge is too complex, specialized, instinctive, political, situational, tactile [add your favorite adjective here] to be transferred.”

After more than two decades of dedicated knowledge transfer work, we have heard this myth voiced countless times—all proven in the end to be untrue. Here’s how it sounds:

- “We have a million variations.” (After a little investigation, it turns out to be closer to seven variations that are repeated in a wide variety of situations.)
- “Our expertise has too many dimensions/dependencies/relationships to teach.” (Or is it just that you don’t know how to break these dimensions down?)
- “Our experts won’t let you use this process on them. There are very strong personalities at the top, and they don’t like things done to them.” (We’ve found that all experts have a selfish motivation for wanting to transfer their knowledge. Uncovering this is the key to getting them to participate willingly.)
- “You can’t actually pinpoint the skills and wisdom of our experts—they’ve been working here for years and even they can’t tell you what they do.” (Having used knowledge transfer techniques with hundreds of job roles ranging from bank tellers to video game designers to airplane mechanics to army base commanders—we have found that virtually all positions have 60 – 120 unique job skills.)

The Truth: Any expert’s knowledge and wisdom can be packaged and measurably transferred, so long as the apprentice has the capacity to learn it. This notion of “capacity” may sound like I’m trying to introduce a big loophole, but when I say that, I’m merely pointing out that if you haven’t made a sound hire, or assigned a capable human resource to learn, knowledge transfer can’t fix that. The good news is that if you did make a poor choice in assigning an apprentice, this will become clear very quickly when he or she can’t respond to the knowledge transfer process as expected, and you can replace this weak link.

Misconception #2: “We already have knowledge transfer covered.”

This myth is common in organizations with a laundry list of employee development programs. People often over-estimate the actual results of their efforts. In fact, most programs that present themselves as knowledge transfer do not truly have a methodology for replicating actual skills. In our experience these programs are almost always relational and leave actual knowledge transfer up to chance: “Let’s put them in the same room and have them work together.” “Let’s build a community of practice or a wiki (and hope for the best).” “We have a mentoring program where we’ve matched new hires with an experienced employee. They can take it from there.”

Remember that we can’t instantly replace the wisdom gathered over many years, but we can dramatically reduce the amount of time it takes to begin working, thinking, troubleshooting, and acting like the expert.

The Truth: If you’re wondering whether your existing programs would hold up to scrutiny, just ask for proof. In what ways can you measure if that important knowledge and wisdom was actually transferred? Your current knowledge transfer is probably happening through more traditional routes; coworkers learning from each other due to proximity or pure luck.

Also likely, workers whose performance you'd really rather not duplicate are ending up spreading their way of doing things—because they have the time, access and/or inclination. Consider: it may be OK for you to have one “Crazy Bob” on your team because of some unique qualities he adds, but do you really want six “Bobs” on your team because he spreads his ideas like a bad cold?

Misconception #3: “We’re just too busy. Our experts can’t take time out for a ‘formal’ or concentrated knowledge transfer effort.”

First off, it is important to acknowledge that the experts we tap to be mentors are busy; usually the busiest. After all, we want the best person in a role to be the mentor and their team also wants them to tackle the most important tasks. These people are often pulled in many directions already and may feel overwhelmed before even starting to imagine knowledge transfer as another job on their list. Finally, there is the sense that transferring their knowledge is a one-time, big task and this can create another imagined roadblock to starting. How can they make knowledge transfer happen on top of their “real” workload?

The Truth: Being “too busy” is never going to end for our experts. None of them will go home one day with a finished “to do” list. The only thing we can do is help them to work on the highest priority tasks first. If replicating their skills to reduce risk is deemed a critical priority, then our next step is to prioritize and weave this work into the other tasks they already undertake.

And, we have to be ruthlessly efficient. With a systematic approach, knowledge transfer, even for a very complex job, can be organized in a matter of hours or days (not weeks or months). Then, the highest priority skills can be taught in a series of methodical one-hour chunks. It might take 70 hours for a mentor to teach her expertise but she can plan for each of those 70 hours in an efficient and timely way (like any other task), with deference to her “regular job’s” other priorities.

Misconception #4: “Our experts don’t want to teach.”

Some organizations have the grumpy old curmudgeon in the corner who holds a reservoir of unique knowledge but appears to be completely unwilling to help anyone else. Some believe this is because he really doesn’t like people and/or is protecting what he knows because he feels that “knowledge is power.”

The Truth: While we have heard this argument countless times, it has only proven to be true in a small handful of incidents—and by that I mean fewer than five people in 20 years. When this appears to be the problem, the real issue is often the expert doesn’t know what to teach, when to teach, who to teach, or how best to teach what they know.

These four issues are all solvable with a little leadership on the team. A manager can be clear about the specific skills the expert should teach, provide an apprentice and help both the expert and the apprentice prioritize this relationship relative to other work, and then give training to teach the expert how to be a teacher. And, very importantly, with expectations clearly defined, the manager can hold both the expert and the apprentice accountable for results.

Misconception #5: “You need nice people with good social skills to be mentors who share their knowledge. Only a few of our experts are like that.”

The Truth: You do not need mentors who are “nice” people or naturally gifted teachers to make knowledge transfer happen. More than 70% of our clients are scientists and engineers. This is not a population known for group hugs and tea parties. A good knowledge transfer process is not dependent on your mentor’s degree of social skills. We do not even need mentors who are particularly pleasant. They simply need to be competent, and willing to spend limited, focused time using the tools and following the plan.

Misconception #6: “Our experts are not even located in the same country as their coworkers. Knowledge transfer from a distance is too hard. We have to put people on planes to get anything done, and that’s expensive.”

The Truth: Proximity does help when it comes to building a solid peer mentoring relationship. Mentors and their apprentices can have many helpful conversations over lunch or walking to and from meetings. It is just easier to look over the shoulder of an apprentice to see him or her in action and provide feedback. But if that isn’t possible, methodical knowledge transfer still is.

When the expert and the apprentice are in different buildings/states/regions/countries there is only one way to make the process work: with a clear plan that has been adapted for all the variables. Each mentor/apprentice relationship needs to have a solid kickoff with managers present to provide clear expectations, a predictable communication channel to stay in touch, a clear list of skills to be taught, and guidance on how to prioritize the knowledge transfer relative to other tasks. Informal, oral testing to ensure the knowledge transfer really happened is even more critical when the mentor isn’t around to keep an eye on the apprentice. With a common sense structure, distance issues can be overcome.

Misconception #7: “Knowledge transfer feels like just another ‘flavor of the month’ corporate initiative and there are too many of those already.”

As with many misconceptions, this has a basis in reality. Some corporate cultures have never met a trend they didn’t seek to embrace. And your experts have been pulled down more than a few of these rat holes. How can they trust that knowledge transfer isn’t just one more of them? Where is the evidence that this program has teeth and is more than just another passing fad?

The Truth: It probably goes without saying that these fears are completely legitimate. Look around at the graveyard of posters, printed T-shirts, and pithy acronyms from the last parade of consultants with shiny shoes and a PowerPoint deck. Each one comes in with promises that sound great but get no traction and fall apart soon after the consulting team leaves. At our firm, we’re subject to all of those same concerns. We’ve found four critical success factors that set up the projects to succeed and help us overcome the odds. The requirements include:

1. A senior executive who agrees that the risk of not having the right talent in 1 – 3 years is worth managing and tracking a solution over time (using as little as one hour a month for a group of 200).
2. It also includes having a program manager on the ground who learns our tools and can use them daily to hold others accountable and drive toward measurable results (a few hours a week for a group of 50).
3. Next it includes ensuring that before the process begins, the experts and apprentices understand how to prioritize this work.
4. Finally, we recommend incorporating the effort into existing long-term and carefully managed systems. For example, every organization does performance reviews, and the skills one teaches or learns through knowledge transfer can be the heart of every employee’s development plan each review period.

Still sound too difficult? Remember that the need for on-the-job learning would not go away if the entire company was suddenly younger or fully staffed or all located under one roof. There will always be changes such as growth, reorganizations, acquisitions, new product rollouts, etc. that will require experts to teach on the job. And these needs exist at every level of the organization from the C Suite to the reception desk. Knowledge transfer is a critical capability that warrants a place near the top of your priority list. You just might need to make some tough decisions to make that happen.

Misconception #8: “Knowledge transfer is really an aging worker problem and our team has plenty of younger employees.”

Demographics and the size of the retiring Boomer population have certainly created a stir in workforce planning circles. The story goes that Boomers are retiring in hoards and the sky will fall unless a lot of young people are quickly brought on board. Once they're hired, these young people will pick up the mantle and start their own 30 year stints. You're golden if you just watch the demographics and get your average age down below 50 years old.

The Truth: There is no doubt that an aging worker population is a critical risk for many companies. The myth is that having younger workers reduces risk. The truth is that any employee can leave at any time so the real risk isn't age; it is employees with unique knowledge that is siloed to only a few. At one of our client sites, a young engineer was hired to take over a critical role for a couple of older coworkers. She stayed for 6 years and during that time took ownership of a pivotal system. Everyone on the team was relieved at how well she was doing and they were shocked when she announced that she would leave to go to graduate school. In the end, she left before the people she was hired to replace.

Illustrations: 10 Business Problems and Their Solution with ROI

The following are actual knowledge transfer scenarios that have played out in the real world. We offer these as concrete illustrations of knowledge transfer in practical application—and its benefits. Many of them should be very familiar to you.

Onboarding/ramp up to productivity: A new account manager has just joined a finance and consulting firm and needs to build specific skills before flying solo and generating billable revenue. Knowledge transfer is used to drive the new hire's onboarding, so that ramp up to productivity is reduced by 50%, enabling the new hire to start registering billable hours months earlier than others, and help the department get their services out to clients on time.

Retiring worker: Two employees have been tapped to replace a retiring research scientist who “picks the sugar” for the next chocolate, biscuit, or candy going to market. After examining the expertise, it turns out that “picking the sugar” is really all about carefully managing a vast network of vendor relationships. This expert has many hidden talents. He knows how to present new product specifications carefully without revealing trade secrets, a grave concern. He knows which potential vendors would be most appropriate because of their access to sufficient volumes of raw materials worldwide, and he knows which trusted names inside each company are most likely to provide an honest assessment of the potential for a sugar's use. Without this tacit wisdom, “picking the sugar” could result in competitive vulnerability and risks to the quality and availability of a key ingredient, crippling production. Through knowledge transfer, the research scientist's critical knowledge and contacts are identified, prioritized, and transferred to the two replacement employees, preserving the organization's secret sauce for a new generation.

Emergency knowledge transfer: The highly successful and well liked head of a research center with 14 years' experience running the site and securing critical government contracts announces that he will retire and depart in 30 days. There had been no warning, and his team of five directors is shocked and very concerned that anyone will be able to fill his shoes. No one really knows what he does but he clearly does it well because the site has been highly successful during his tenure. Within a couple of days of his announcement, the knowledge transfer process is deployed to break his role down into manageable chunks so that each individual task can be transferred to one of his direct reports until a replacement can be found. With the tasks laid out, every hour of his remaining 30 days can be used for a knowledge transfer session on the most critical skills. In the end, he leaves before everything is transferred, but the remaining risks are known and his limited time has been used as carefully as possible to transfer the most critical knowledge.

Driving Innovation: In the video gaming industry there are many creative positions with job titles like artist, animator, designer, and developer. While there is clearly an innate talent that makes people successful in roles like these, there is also an ability to operate within a framework that allows them to get an excellent product to market on time. Through knowledge transfer, we find more secret skills here. It turns out that these workers can: “keep an ear to the ground” for the competitive landscape, “pluck innovation from the mundane,” “present ideas” and gain approval to take risk, “sort for the fun quotient” in the team’s effort, “build relationships” with outsource partners, etc. In this industry, the knowledge transfer process has helped identify who does the best job of navigating their company’s production process while keeping the creative flow in high gear. Once we learned who these experts were and what they did, we were able to help them to teach the approach that worked best to others.

Identifying best practices and creating consistency: Eight product technicians are introducing and testing a new product in controlled trials across North America. Each one does a terrific job of creating a unique process for their customers. When the product is ready for a national rollout, the company needs to hire 200 people and train them to be additional product technicians. The original eight are to be tapped to travel the country and mentor this new group. The knowledge transfer process is applied and uncovers that each of the eight did their job differently. Since consistency is key to customer satisfaction and controlling costs, management uses the knowledge transfer process to choose the “best” approach of those offered by the original eight technicians. They then prepare knowledge transfer plans to retrain the original eight on the best approach and ultimately replicate those skills in the 200 new technicians.

From vendor to customer: A 27-year old clinical specialist with a nursing degree needs to teach a veteran cardiologist how to install a new heart valve her company produces. In addition to the obvious generational differences, the two also have different learning styles. Knowledge transfer techniques are used to effectively pass on the skills needed to apply the heart valve, so that the surgeon’s clinic can successfully treat their patients and, over time, adopt this product for regular use over a competitor’s.

Engagement and retention of Millennials: A 26-year-old female engineer has been working for almost two years in a team of largely retirement-aged male engineers at a public utility. She is considered smart and capable, but there is little evidence of this in her output. The knowledge transfer process uncovers a simple reason: she is only working in one of the twelve work areas covered by her team. She has been completely boxed in. When sought out to assess the problem, she tells us that she has already updated her resume and will be leaving the plant soon. She cannot imagine continuing a career with such narrow opportunities. We are able to use the enterprise-wide knowledge transfer process to show her all the skills and opportunities that are available to her if she stays with her current employer. As a result, she interviews with and goes to work in a different team in the same division where she flourishes, rather than leaving entirely.

Reducing safety incidents and attrition: A large mining company in the American southwest is facing a challenge common to many industrial operations: booming demand for their product requires many new hires and a rapid onboarding of new employees, many of them into high-danger jobs. Because of this, the mine is experiencing a disproportionate percentage of recordable safety incidents and lost-time accidents among employees who have been on the job less than 120 days. The organization also has a very high rate of attrition among new hires because people are getting scared or hurt, or finding the working conditions too difficult to manage on their own, and as a result, quitting. Six months after implementing a knowledge transfer process and tracking a control group, data clearly shows that new hires who received typical onboarding and on-the-job training got hurt three times more often than the new hires onboarded and trained using the knowledge transfer process. In addition, attrition and termination for the typically trained group was four times higher than for the knowledge transfer supported group.

Load leveling to reduce overreliance on one expert: A team of software developers is relying too heavily on one key player. It is easy to do because this key player is technically excellent and also a friendly, willing mentor. The risk to productivity and profit margins, as well as the potential for employee burnout, become extremely obvious when a knowledge

transfer process points out just how much of the team's work is ultimately relying on this expert. Not only is he mentoring strategically critical skills but he is also teaching mundane tasks, like expense reporting, and low-level processes, like bug tracking and source control. Once this problem is clear, the team's manager is able to actively steer non-critical questions and tasks toward others and keep her best engineer focused on the most crucial work.

Working with offshore partners: A team of computer board designers is split with half of its workers in the U.S. and half in China. The strategy is to pass work back and forth between the two teams around the clock, but each team has its own way of doing such work and expectations are very unclear. A knowledge transfer process is applied and helps the two teams to list all the tools, processes, platforms, and skills they will use together, and then clearly decide which worker will set the standard to follow for each. At first this is difficult because it forces some tough discussions between the managers, but once these decisions are made, everyone is able to get to work rapidly and deliver their project on time and on budget.

What a Good Knowledge Transfer Model Looks Like

How to Be a Better Consumer of Knowledge Transfer Solutions

It's a simple enough question: what does "good" look like in knowledge transfer?

Hopefully by now the knowledge challenges that exist in today's organizations and the advantages of a knowledge transfer solution are clear to you. Now, as a business community, and as individual leaders tasked with addressing these challenges and assessing possible solutions, we need to think about basic criteria for judging what makes a good knowledge transfer model so that you can be a better consumer of knowledge transfer investments. We believe any list should include these:

Ask: "How can I confidently measure that knowledge has been transferred?"

Good knowledge transfer programs should be simple. If a plan requires a degree in psychology and education just to understand, it's too complex and will very likely fall apart during implementation. Your model should be clear enough that non-HR executives can understand it quickly and without much effort. When line leaders implement it, they should start seeing results within days and be able maintain the process in a few hours per month.

Good knowledge transfer programs should clearly show workforce risks that could cripple an organization in the future. If the output of the knowledge transfer effort doesn't allow you to plainly state your risk of having insufficient workforce skills to meet your business strategy 1-3 years out, then it is a waste of time and could even be a detriment. False complacency sometimes lets leaders off the hook for solving the real problem.

Good knowledge transfer programs should be trackable over time. They need to show how the risk is being reduced to maintain a ready, productive workforce today and down the road. Any good model needs to be an on-going solution that can adapt to future conditions. The need to preserve your secret sauce is not going away—it will exist in the future when new generations bring challenges that you cannot predict today. Executives should not settle for "one-shot" knowledge transfer models that fix only today's problem. Plans need to be customizable and reusable for future employees.

Good knowledge transfer programs should include a methodology and tool set, with clear outputs that anyone can read and understand within a few minutes. It should give you a model for methodical transfer, tools to assess knowledge gap risks and set priorities, a plan and tools for transferring the knowledge in the most efficient way possible, and tools and metrics for proof of transfer.

Good knowledge transfer programs should drive a clear conversation about what knowledge needs to be transferred, who is to deliver it, and who is the recipient assigned to receive it.

We've learned that this is harder than it sounds and in many cases, managers avoid designating what we call an "expert," someone capable of and tasked with delivering unique knowledge, unless required to do so. And, since everyone is so busy, assigning "apprentices," or people to receive the knowledge, can also be a difficult conversation. Poor knowledge transfer models are too general. Every good model must include a clear and prioritized list of the knowledge needed, who knows it and who needs it. There is no way to predictably reduce risk without it.

Ask: "Can you show me an artifact or tangible output of the program, such as plans, reports, results, etc.?"

A good knowledge program should not be dependent on the degree of social or communication skills possessed by the person holding the knowledge.

If someone in your knowledge transfer program has to have great social skills or be a natural teacher in order to make the process work, it's an insufficient model. You will only end up transferring about 10% - 30% of the critical knowledge you must move. A good knowledge process needs to work independent of such personality traits.

Ask: "How can I tell if this is going to help me reduce talent-related risks to executing on my strategy?" How will I know when my risk has been mitigated?

Good knowledge transfer programs should be measurable.

Long term results will come from a little old-fashioned top-down management. This requires planning and a system to ensure the plans are executed and everyone is held responsible for results on an ongoing basis.

Good knowledge transfer programs should foster a culture of knowledge transfer within the organization. The goal is to

make knowledge transfer happen organically at your company every day. A good knowledge transfer model will incorporate your efforts into existing long-term systems. It will show how to make knowledge transfer happen and include structures, terminology, roles, and systems of measurement and reward that help turn transferring knowledge into a cultural norm.

In Practice: A Road-Tested 3-Step Knowledge Transfer Process

For those expecting this white paper to include practical models that meet the above standards—or for anyone who doubts such a model exists—I’ll give you just a few quick paragraphs on how we at The Steve Trautman Co. solve these problems. I include this simply as an illustration of what one knowledge transfer process might look like, and to ground discussion of the above concepts in practical reality. If you’re interested in learning more, you can contact us for additional information and a free demo of our Step 1.

Preparation

All knowledge transfer models will have some type of preparation phase. Before implementing our 3-step solution, we first listen and learn. Our goal is to assess your pain points and move to problem-solving and implementation more rapidly and credibly than other firms by being excellent, quick-study students of your business. Our consultants:

- Learn your language, history, and hotspots.
- Notice how your culture will support or hinder our process.
- Assess the strengths and weaknesses of your leaders.
- Incorporate your strategic plan, competitive environment, and the business problems you face into the context of our delivery priorities and customization.
- Benchmark your business issues against a wide variety of companies like yours.
- Scope the costs of your workforce problems (i.e., knowledge loss, quality, productivity, high safety incidents, employee morale and retention).

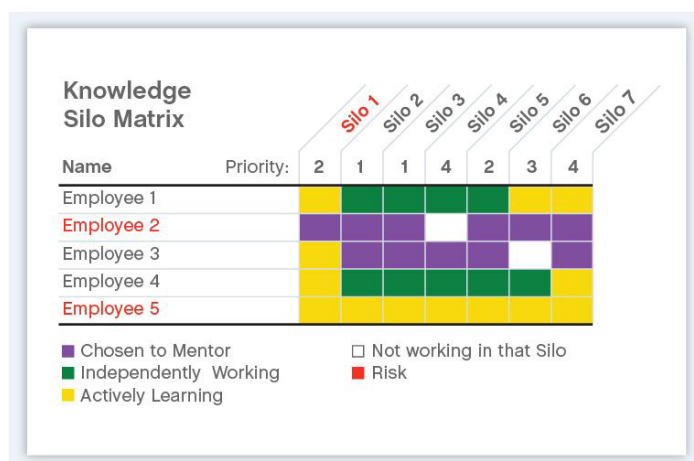
We do our prep work fast and with a small footprint. Then we work with you to build a customized version of the below 3-step model.

Step 1: Assess Risk

Knowledge Silo Matrix

The first step in our model is to assess and prioritize all workforce- and knowledge-related risks. We want to stress-test your organization’s ability to deliver its products and services on time and on budget, while maintaining desired levels of quality and innovation. To do this we use a risk assessment tool called the Knowledge Silo Matrix (KSM). It is based on a combination of a straightforward Q&A process and a simple framework to chart the outcomes. An initial draft can reveal the talent and knowledge risks for a team of 10 in less than 90 minutes.

The KSM formats the results into a simple grid charting the risk. It inventories the technical expertise and professional wisdom held by individual workers in a group or team (coded yellow, green, or purple). The (“employee”), is shown graphed against the relevant knowledge areas (“silos”) of your business. This is not a one-size-fits-all software program. Nor does this product require a high degree of learning. The relational database used to display results is very simple and reports can come to you in Excel. Risks by worker type, departments, or silos are immediately apparent. The tool is also scalable from small teams to enterprise-wide solutions.



Step 2: Form a Plan of Action

Skill Development Plan

Once your risks are pinpointed and prioritized, the next step is to create a measurable path to reduce risk within critical knowledge silos and positions. For us, we use a tool called the Skill Development Plan. It is a customizable and measurable master list of the skills and knowledge that must be learned in a given role. It also includes the resources available and the checks needed to confirm that the right knowledge (explicit as well as tacit) has been transferred.

First, we list the skills relevant to that role. (A skill is defined as something someone can “do” and can be explained/taught to a qualified apprentice in about an hour.) We make this list using a short, clear-cut interview process with your identified experts. We then customize the plan for individual apprentices by prioritizing which skills they need to learn first.

To create a way to assess if a skill and its related wisdom were learned by an apprentice (transferred), we help your mentors choose test questions from an established knowledge transfer set that we’ve honed over the years. These 20 test questions are adept at checking for the transfer of secret sauce behind any task. They are the “gold” of a Skill Development Plan and can reveal to a mentor if the apprentice has gained sufficient proficiency before being ready to work independently.

Skill	Proof of Wisdom Test	Date
Monitor and troubleshoot value insertion and delivery	✓	10/21
Analyze best screening pathways site	✓	11/10
Select applicable TAVI approach	✓	12/4
Lead quarterly technical review	✓	10/19
Host visiting vendors for product selection meetings	✓	12/31

In the plan, we also include a list of resources available to support an apprentice’s learning (i.e. current documentation, training, samples, templates, and who can mentor this skill), plus a date by which the apprentice should be able to answer a skill’s test questions correctly. Two important side benefits are that this enables apprentices to drive their own learning and that plans can be easily adapted in the future to address new knowledge transfer needs within the same team or position.

Step 3: Learn to Act on the Plan and Measure Results

Knowledge Transfer Workshop

The final step is to remove obstacles and empower employees to act on their plan. We do this via a 1 or 2 day “how-to” workshop, delivered to your identified mentors, apprentices, and, if desired, their managers. Our Knowledge Transfer Workshop gives you fifteen proven tools to transfer an expert’s information, know-how, and tactic knowledge to their coworkers—while the mentor maintains a regular workload. The tone of our workshop is 100% straightforward, get-it-done advice that has been tested and refined in the real world; no Koosh balls, no group hugs, and no singing Kumbayah.

We show your experts (mentors) how to organize their knowledge into manageable chunks, teach that material, and then make sure that the information was received as intended. We also show them simple ways to leverage different learning styles if they aren’t naturally on the same page with their apprentices. And we teach your mentors best practices for staying in touch with apprentices and transferring their knowledge while still getting their regular work done. After training more than 30,000 people over two decades in a broad range of industries and countries, we have yet to encounter a mentor-apprentice scenario that we can’t help you with.

As critical knowledge is transferred from mentor to apprentice—according to the Skill Development Plans and using the techniques from the Workshop—managers can track the risk reduction as employees move from code red to green or purple on

the Knowledge Silo Matrix. Executives can track results in a monthly check-in to ensure that the risks for the most critical silos are mitigated over time.

The above is our knowledge transfer model at The Steve Trautman Co. We have scoured the globe looking for other solutions and have yet to find one that is even close in terms of simplicity, practicality, and results. If you know of or use another model that you believe meets these standards, we'd love to hear about it. As fans of knowledge transfer and leaders in the field, we want to learn about it, understand it, and help share its best practices with the knowledge transfer community. (See Call to Community, Page 17.)

Closing Thoughts: The Future of Knowledge Transfer

We've made our case that your organization's secret sauce can be saved and preserved for future generations through knowledge transfer. Now what remains to be seen is how this new thinking will make its way through corporate America.

Everyone I've met or who has read my work knows that I am a passionate advocate for common sense thinking and practical application of simple ideas. Sometimes, however, I allow myself to wonder aloud about where all of this might take us. What follows is a list of questions and prognostications about the future of knowledge transfer that some will find controversial. I hope so! If you do, I hope you'll write to me and make your case. I'd love to feature well-argued guest blogs and online discussions that continue to shape this field.

Questions

- Will executives continue to spend money on employee development without being able to show reduced risk?
- What issues will drive knowledge transfer to overcome the lack of awareness and misconceptions that have slowed growth in the field?

Predictions

- Competency models, demographic profiles, and headcount planning are headed for an "emperor's new clothes" moment. Everyone is going to realize that these exercises have just been expensive busy work. Case in point, one of our clients has hundreds of people working on these topics and their risk profile is WORSE than it was when they started two decades ago.
- As Millennials become more prominent in the workforce, they're going to get more of what they want by learning how to drive their own professional development. Knowledge transfer as a process will become native to them. It will make them more nimble as learners and better as mentors when their time comes.
- Innovations in knowledge transfer will focus accountability for talent leaders.
 - Whether you have 10, 100, or 1000 people on your team, managers should be able to show a risk profile and what you're doing to mitigate risk that you won't have the right skills in the near future to meet your strategy. If not, you can't call yourself a good steward of your human resources.
 - Stop having headcount conversations. Have skill-count conversations. What are the skills of your team? If the heads you have aren't fully skilled and utilized, why would a manager get any additional?
 - Stop reorganizing based on job titles or anecdotal profiles. Reorganize based on skill counts. When you move a person you're actually moving a skill set. You should know in advance what happens when that skill set is added or subtracted from any given team.

- Knowledge transfer will become a more important capability in organizations and teams where consistency is critical to delivering a great product or customer experience.
 - Someone needs to call a play and make decisions on instances where there is a “right” or “best” way to do a job; knowledge transfer forces the issue and provides a structure for who will make and how to implement these decisions.
 - Senior executives: stop merging organizations through acquisition or reorg without a knowledge transfer plan. In virtually every case, there are at least two or more “right ways” to do similar jobs, and leaving your managers of the formerly-separate teams to “duke it out” is just sloppy leadership. You’re apt to lose some of the very talent you intended to keep.
 - Don’t use regional or international cultures or locations as an excuse for avoiding the conversation about “the right way.” If the business is better off having consistency, it should be a goal that everyone works toward.
- We’re going to learn a lot more about transfer knowledge in regard to innovation and creativity in the next decade. This is not putting the creative process in a box but rather ensuring that the creative environment takes full advantage of the learned lessons that have worked for others.
- Knowledge transfer will change the way we write goals in the professional development section of our performance review documents.
 - Ex. Changing from “take a class” to “learn a skill.” Who cares how many classes you took? It only matters what skills you developed.
 - Ditto for “qualifications” or “certifications” that are based solely on attending classes and putting in a certain number of hours on the job rather than the development of a proven skill set.
- Knowledge transfer will become a tool to show outsource partners (e.g. IT needs) what you expect in terms of baseline skills and to hold vendors accountable for providing these up front. Why not use the Skill Development Plan to test every vendor walking thru the door and either send them back or get your bill reduced if they don’t meet the negotiated service level agreements?

Trends

- Opportunities will grow for partnerships between knowledge transfer and knowledge management. Knowledge management is a field that concerns itself with interactive tools that ask questions of experts and then store that information for others, usually in a database.
- Knowledge transfer will also build partnerships with the field of change management. Culture is often manifested in the acts of the best employees. If we’re trying to perpetuate a terrific culture or change a bad one, knowledge transfer can be a framework for defining what “good culture” looks like and for monitoring critical short-term wins.
- Finally, new partnership opportunities exist today were they didn’t a decade ago between the emerging field of knowledge transfer and the now well-developed field of risk management. For example, a trend in financial industry over the past five years has been to form formal risk management teams or positions—such as enterprise risk management groups or chief risk officers—who evaluate potential threats throughout all aspects of their business. One of the questions these executives are tasked to ask is: what could go wrong in terms of our workforce and their ability to execute on time and on budget? The field of knowledge transfer has risk assessment tools relating to workforce that can uniquely answer that, and bridges are being built between these two fields.

A Call to the Business Community: Who's Solving these Problems?



As thought leaders in this space, we have sought to find the best and brightest knowledge transfer solutions. We've done more than due diligence in our search... and have yet to find any competitive models that meet the bill. We're really looking—and we want your help.

There are companies out there that are doing terrific work in related fields such as talent management, knowledge management, and others. For example, the up-and-coming Intrepid, a young Seattle-based firm, is doing some work I admire on task analysis relative to worker competencies. And, Anne Marie Neal at Cisco has a model for knowledge transfer when setting expectations for a leader's role in talent management. There are also academics who are studying the subject of knowledge transfer and putting forth important research and strategic theory. For example, I have partnered at times with Research Fellow Dave DeLong of the MIT AgeLab, who has studied America's aging worker crisis extensively. But to date we've found no company or consultant team that is honing in on the mechanics of knowledge transfer and providing relevant, proven solutions in the field.

So if you have found, have heard of, created, or are involved with an innovative knowledge transfer solution that's really doing the job—we want to know about you. We want to meet you, interview you, and share your stories and best practices. Because that's the power of community. The bigger the highway to knowledge transfer solutions and innovations, the better for everyone in this network and in businesses today.



About the Author

Steve Trautman is corporate America's leading knowledge transfer expert. For more than two decades, he has provided executives at blue-chip companies and those in the nonprofit and public sectors with the simplest, most relevant, and quick solutions for knowledge transfer. His pioneering work in the field of knowledge transfer and workforce risk management tools is now the nationally-recognized gold standard. Developed by Steve in the early 1990s when he worked at Microsoft, his knowledge transfer solution is now used by companies ranging from Boeing to Nike, Kraft to Zynga, Kodak to Honeywell. Today, at the helm of The Steve Trautman Co., he continues to innovate.

He has written two books, *Teach What You Know: a Practical Leader's Guide to Knowledge Transfer Using Peer Mentoring* and *The Executive Guide to High-Impact Talent Management*. He speaks internationally and provides business leaders with consulting, presentations, and executive retreats—where he is known for his high energy style that combines humor, street smarts, and board room wisdom. Trautman resides in a walkable neighborhood of Seattle, Washington with his wife and two children. He and his family support more energy-efficient living and are halfway through their quest to visit all the U.S. National Parks.



www.stevetrautman.com

Phone: 206.547.1775

Additional Resources

Teach What Your Know: A Practical Leader's Guide to Knowledge Transfer Using Peer Mentoring, Steve Trautman. Prentice Hall, 2007.

The Executive Guide to High-Impact Talent Management, David DeLong and Steve Trautman. McGrawHill, 2011.

Lost Knowledge: Confronting the Threat of an Aging Workforce, David DeLong. Oxford University Press, 2004.

Getting Things Done: The Art of Stress-Free Productivity, David Allen. Penguin, 2002.

Howard Gardner's (Harvard Graduate School of Education) work on the theory of multiple intelligences.

*Knowledge transfer has an alternative definition in the U.K. There it is used to mean the transfer of information and knowledge, and perhaps expertise and skills, specifically between academic institutions and businesses. For example, a university researcher might transfer knowledge from a study to a business, thus giving them support in that way.

**The 70/20/10 learning concept was developed by Morgan McCall, Robert W. Eichinger, and Michael M. Lombardo at The Center for Creative Leadership and is specifically mentioned in *The Career Architect Development Planner*, 3rd edition, by Michael M. Lombardo and Robert W. Eichinger.

