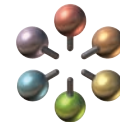


## 7 CAUSES OF KNOWLEDGE GAPS AND WHAT YOU CAN DO TO CLOSE THEM



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Measuring & Closing Costly Knowledge Gaps...  
One Employee at a Time

## 7 CAUSES OF KNOWLEDGE GAPS AND WHAT YOU CAN DO TO CLOSE THEM

Knowledge is recognized as a key asset in most organizations. Most leaders view continuous learning and improvement as essential to maintaining a healthy, competitive and successful organization.

But every organization has hidden knowledge gaps that contribute to performance gaps.

### Knowledge Gaps = Performance Gaps

Therefore, a critical process in the success of any organization is that of identifying and closing these gaps in knowledge.

The focus of this article is to help organizations understand why knowledge gaps exist (their causes), and to paint a practical vision of how those gaps can be mapped and closed utilizing the latest approaches in employee training and communications.

#### ***Investing in Knowledge and Training***

*“The only thing worse than training an employee and having him leave, is not training him and having him stay.”*

Zig Ziglar

Legendary American author,  
salesperson, and motivational speaker

The last phrase any manager wants to hear from an employee is “I didn’t know I was supposed to do that!” Managers fear these types of responses knowing that the result of ‘not knowing’ can convert to significant losses and negatively impact the financial, physical and emotional health of employees, customers, their store or facility and the company overall.

That is why the ultimate goal of any training program is to ensure employees have the information and skills they require to perform their tasks efficiently and effectively.

To achieve this goal organizations are making a significant investment for training and educating employees. Whether it’s classroom, on-the-floor, e-learning, mentoring/coaching or awareness programs or any combination thereof, companies are constantly striving to develop methodologies that obtain the best possible result.

A blended approach such as this however, costs a great deal of money. This is why training departments are not only under pressure to deliver effective programs, but they must also be able to measure and track the impact their training is having on performance. And some have to go as far as demonstrating a return on training investment (ROTI).

## ***The cost of knowledge gaps is a failure to perform***

Despite best efforts on the part of training departments and managers, critical knowledge gaps exist.

Whether they are unmet sales objectives, low customer satisfaction scores, productivity issues, increased exposure to risk, high workers compensation costs or increased theft, whatever the Key Performance Indicators (KPI's), performance shortfalls can be connected in part to the simple fact that employees did not know what was expected of them and by when. Or in some cases they might have simply forgotten.

## **Cause #1: Lack of Knowledge Measurement**

### ***Do you know what they know and don't know?***

Kirkpatrick's Four Levels of Training Evaluation has been around since 1994 and yet few organizations measure beyond the first level.

#### ***Kirkpatrick's Four Levels***

<i>Level 1 - Did the trainees like the training?</i>	Reaction
<i>Level 2 - Did the trainees remember the training?</i>	Learning
<i>Level 3 - Did the trainees change their behavior?</i>	Transfer to the Workplace
<i>Level 4 - Did the business outcomes change?</i>	Results

Some organizations will however utilize surveys/quizzes to test knowledge levels (level 2) but in many cases they are conducted infrequently due to cost, administration time and survey fatigue on the part of employees, creating periods of time where knowledge gaps form.

Sometimes surveys/quizzes are conducted right after a training session has been completed, leaving the company **believing** they know what people know and don't know, whereas what they have in reality is a snapshot of immediate recall – a far cry from what people will have actually retained after 5, 10 or 30 days.

There is no definitive 'perfect frequency' of knowledge measurement. The ideal frequency will vary depending on what the information is, and how high of a priority it is that employees know the information.

What research has proven is that reinforcing training and testing knowledge within six weeks of a learning event has a beneficial impact on knowledge retention. (*See Cause #2 for more on this point.*)

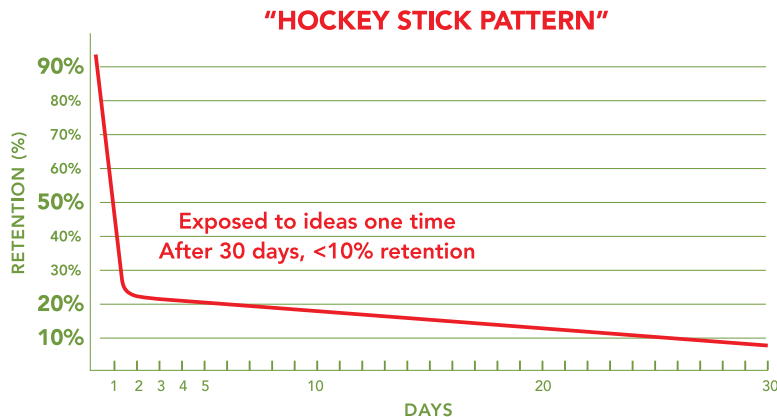
However, imagine if you would, that the testing was continuous and on-going. The company would always know what their employees know and don't know. Insight that would enable them to make decisions based on fact rather than perception or guesswork. Insight that would help them improve their training program, close knowledge gaps, and achieve their goals.



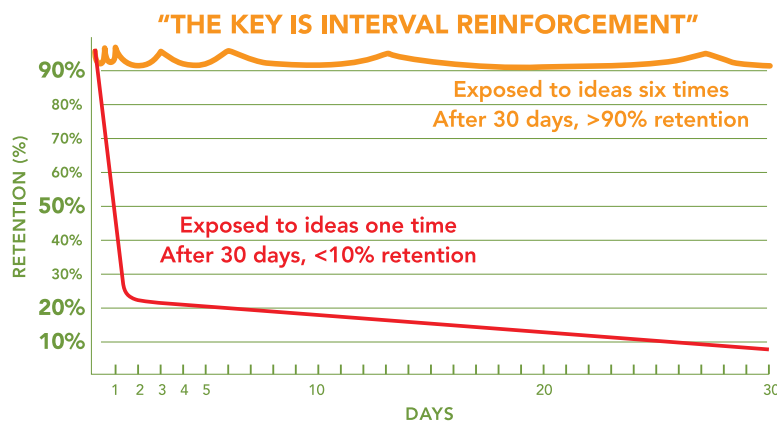
## Cause #2: Lack of Frequency in Training

### How often is often enough?

In traditional 'classroom style' training, 80% of what employees learn is forgotten within 30 days. H.F. Spitzer conducted a prominent 1939 study on memory retention and demonstrated how knowledge fades. He showed that when information was taught, but unsupported, recall diminished over time.



His research highlighted that regular or '**interval reinforcement**' is critical to maintain knowledge levels. Other researchers (Atkinson, Bernbach and P.A. Wozniak) have validated Spitzer's research and demonstrated that repetition is important, as is the spacing of the repetition.



Spitzer's research demonstrated that six reinforcements of information within thirty days maintained greater than 90% retention of the information. Assuming that 90%+ retention is the goal, the challenge for training departments is how to achieve the recommended frequency cost effectively and in a manner that doesn't fatigue or frustrate trainees. (More on this later in the article)

Frequency of testing and training is a core influencer in knowledge retention, but frequency alone won't fill knowledge gaps.

## Cause #3: Information overload

### **How much is too much?**

Although the K.I.S.S (keep it simple silly) and “less is more” philosophies make sense they are commonly forgotten when developing training programs. We have all sat in training sessions and have become overwhelmed with the volume of information. Our minds wander and we retain very little as a result. Although we might test well right after, there is high probability that we will not retain what we need to retain.

Television has conditioned our minds to view information in 8–10 minute chunks. One demographic raised by the television and internet are the **Gen ‘Y’** or **‘Millennials’**. The millennial generation or post-2000 graduates are multi-taskers with shorter attention spans.

According to our own focus group sessions with **‘Millennials’** they want learning to be online and on demand, so they can access it wherever, whenever. And they demand brief, to the point high-impact learning that provides clearly defined ways to solve problems. Some have coined the term ‘nano’ training/learning to describe this.

Regardless of the term, providing information in bite-sized amounts will overcome information overload. Chunking material and providing breaks between chunks of information allows new information to be processed and strengthened in the brain (Middendorf and Kalish, 1996).

In 1997, Shadmehr and Holcomb illustrated the importance of structuring training in bite-sized chunks followed by breaks in establishing knowledge retention. Their research demonstrated that people who learn and master a skill (A) and then immediately learn and master a second skill (B), performed poorly when skill A was performed 5 hours later. People who learned a skill (A), waited five hours, learned a second skill (B), and then waited five hours were able to perform both skills successfully.

Combining the principle “that less is more” with “interval reinforcement”, will improve knowledge transfer and retention.

### **The motivation to learn**

*The remaining 4 causes of knowledge gaps focus on the audience and what it takes to engage and motivate them to learn.*

According to Kevin Kruse, an expert in e-learning, “even with the most elegantly designed training program, it will fail if the participants are not motivated to learn. Without a desire to learn on the part of the student, retention (of knowledge) is unlikely.”

John Keller synthesized existing research on psychological motivation and formulated the **ARCS Model** (Keller, 1987). The **ARCS** acronym stands for **A**ttention, **R**elevance, **C**onfidence and **S**atisfaction. When any or all are missing in the mix, knowledge retention is low and knowledge gaps are created. We will explore each of these four elements in the remaining causes.

Gaining and keeping attention for learner engagement is critical in organizational training and should be considered when developing training

material (Dick and Carey, 1996). Gaining and retaining the attention of the trainees is the most often overlooked component of an instructional strategy and perhaps the most critical component needed for employee-learners (Kruse, 2006).

Therefore, it is critical in the preparation of a training program that the training departments utilize the ARCS model or something similar in scope to develop a learning value proposition that presents a solid case that employees will buy into.

## Cause #4: Lack of Trainee Attention

### ***“This is boring, do I have to?”***

Attention is the first critical step for knowledge retention and skill transfer. Keller’s ARCS model shows that effective learning starts with the learner’s focused attention.

Keller’s recommended strategies for getting and keeping attention include perceptual arousal, inquiry arousal, and variability (Kruse, 2006).

- **Perceptual arousal** occurs by using surprise or uncertainty to gain interest. One technique used by trainers is posing facts or statements that are incorrect or take a contradictory point of view to explore a topic.
- **Inquiry arousal** occurs through posing questions or problems to be solved. This can occur in an e-learning or in-person environment. In retail-based organizations for instance morning huddles are a great opportunity to pose questions or scenarios to employees to solve.
- **Variability** happens by using a variety of exercises and media to present materials such as reading a manual, watching a video, utilizing e-learning and ongoing coaching it will stimulate and maintain interest.

One tactic that encompasses all of these and successfully captures and maintains the attention of employees and increases participation rates within organizations is a game/contest element. Either turns flat content into interactive fun that engages employees and can even get them wanting to come back for more especially if there is an opportunity for some form of reward or recognition. By extension, this could also fall under Cause #7 - *Satisfaction* (see below).

## Cause #5: Lack of Relevance

### ***“This has nothing to do with me or my job”***

Relevance is the second critical factor impacting employee motivation and knowledge retention. The more relevant the information is to the individual and their specific responsibilities, their learning needs and their goals the more likely it is to be listened to and retained.

The typical approach to training employees is a one-size fits all program that exposes all employees to the same broad stroke of information in the same manner. At best, training is customized based on job titles, but seldom do training programs take into account each individual’s specificities: learning styles, demonstrated level of expertise (down to a topic level), etc. The ideal option, to

increase relevance and ensure knowledge sticks is **personalization**.

According to authors Darin Hartley and Kalees West in a November 2007 issue of the ASTD publication Learning and Development,

*“ Personalization makes theory, concepts and content more relevant for the learner. Learning personalization includes parsing of information that is most relevant to the user based on his role, language, culture, learning style and personal preferences.”*

While we agree wholeheartedly with these conclusions, we recommend other criteria for what is considered relevant. Rather than wasting the employee’s time training them on what they already know, we would add that what an employee doesn’t know but needs to know be another of the guideposts for determining relevance. We also recommend that relevance include the continuous increase of difficulty level so that employees are constantly being challenged to improve.

## Cause #6: Lack of Confidence

### **“I can’t do this”**

*“ Confidence is required so that learners feel that they should put faith into the training program. If employees feel that they are not capable of achieving the objectives or that it will take too much time or effort, their motivation will decrease. In technology-based training programs, students should be given estimates of the time required to complete lessons and a measure of their progress through the program.” (Kruse article)*

A constant reminder of where employees are in the training process along with positive reinforcement or feedback on their performance will go a long way in building confidence and keeping employees motivated.

## Cause #7: Lack of Satisfaction

### **“What’s In It For Me?”**

People seek intrinsic and extrinsic rewards. Training programs that do not provide some level of recognition or reward will have lower participation rates and therefore, a lower knowledge transfer.

Rewards that satisfy include:

- Certificates received for completing a course or winning a competition
- Joy associated with an entertaining training experience
- Public praise by managers
- A raise or promotion
- Cash or prize
- Being able to help or protect someone else



But we all know that it just feels great to have performed well. Transferring or applying knowledge to perform a job more effectively is a key source of satisfaction and therefore an effective means for elevating knowledge retention. For example, if information attained through training answers or speaks to an immediate need or helps the employee or helps the employee help someone else overcome a challenge or complete a task there will be the perception that training is valuable and is therefore satisfying.

### ***Accelerate Knowledge Retention and Performance***

To close these seven causes of knowledge gaps requires a blended approach of offline and online learning that automatically measures gaps on an ongoing basis and closes the gaps through bite-sized training that captures attention, is highly relevant, builds confidence and satisfies the learners.

This solution is available today.

At **CoreCulture**, we enable our clients to measure and close costly knowledge gaps in real-time, one employee at a time. We specialize in individualized training and awareness programs, which combine communication programs customized to your culture with the world's only automated personal training and awareness platform, **JUST IN TIME TRAINING™**. You will always know what your employees know and don't know and be able to close the gap - guaranteed. That's why you owe it to yourself to explore this exciting approach to employee training and awareness.

If you would like to read about an actual case application, we have included a case study within this white paper that demonstrates how our approach has helped one major retail organization in the US increase knowledge retention to over 98% and how it helped them obtain the behavior they were after.

### ***Close the Gaps***

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## Case Study

# Pep Boys Auto



### **Background:**

The company operates about 560 stores in 35 states and Puerto Rico, selling brand-name and private-label automotive parts and offering on-site service facilities. Pep Boys stores stock about 22,000 car parts and accessories, including tires, and combined operate some 5,845 service bays for parts installation, repair, and vehicle inspection. The company serves four segments of the automotive aftermarket: do-it-yourself, do-it-for-me (service), buy-for-resale (sales to professional garages), and tire sales.

### **Goal:**

Reduce the growing number of internal theft issues; increase recovery of stolen goods.

### **Objective:**

Increase call traffic and along with it the quality of leads given on the company's Integrity Pays Tip Line.

### **Solution:**

Re-launch 'Integrity Pays' Tip Line program which included a communication campaign designed to achieve goals and objectives.

### **Communication Campaign:**

A newly designed print based campaign to promote integrity and to increase traffic on the already existing 'Integrity Pays' tip line.

It included posters for every location, a wallet card for each team member, launch meetings in every store along with a detailed Standard Operating

Procedure (SOP) that reinforced the opportunity, existing procedures as well as the following changes to the program:

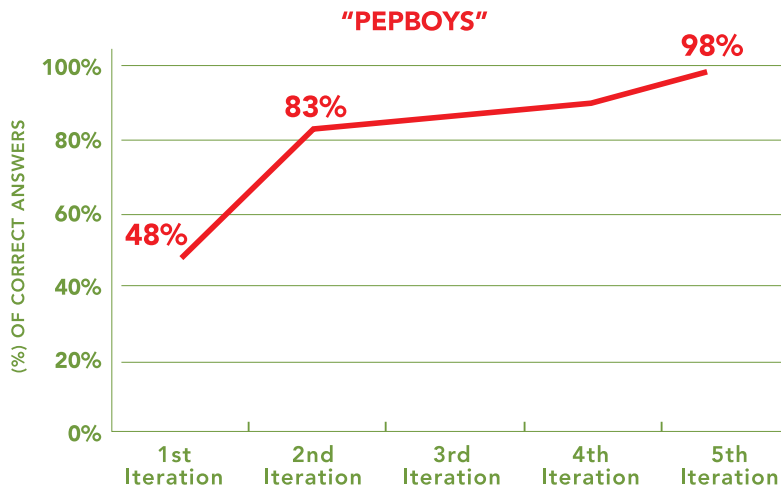
1. increased minimum reward from \$25 to \$50; and
2. increased maximum reward from \$2,500 to \$10,000.

Altogether, little additional or new information was added, but lots of added benefits and incentive, for reporting theft here. The intent once again was to motivate team members to call the tip line which should have led to an increase in traffic and quality of the leads that were reported.

### Results:

Ten days after the awareness campaign was launched Pep Boys saw little change in the performance indicators they were tracking. They were unsure of the reason. Was it a matter of knowledge retention? Did the team members just not care?

The following graph represents the result the **JUST IN TIME TRAINING™** platform was able to generate.



### Methodology:

To learn the answer we populated the **JUST IN TIME TRAINING™** platform, already in use for Health & Safety, with questions pertaining to the 'Integrity Pays' program. The goal was to identify how much of what was shared through the various campaign elements was retained by the team members.

After the first iteration of questions less than half of the questions (48%) were answered correctly. The company was quite surprised at the result. One conclusion was that the print program confused the team members. Another was that the team members were simply not interested and paid little attention to what the program had to offer because they did not fully understand the benefits. Either way it was clear that their investment in this campaign generated little in the way of return.

The good news was that because the **JUST IN TIME TRAINING™** platform provides the right answer if the question is answered incorrectly and continues to reinforce what the team members need to know by continuing to ask questions (interval reinforcement) until the team members consistently answer correctly, we were able to see a rapid improvement in knowledge retention. In fact just after the 2nd iteration of questions, it spiked to over 83% and by the 5th iteration which was within 10 days, knowledge retention of the key learning points was 98%. What a difference!

This result had a considerable impact on the objectives of the campaign. There was a sudden increase in the number of calls to the tip line. As well, the quality of the tips improved, which led to a significant increase in the number of investigations and the recovery rate of stolen goods. With it came an increase in the dollar amount of the reward handed out to team members. Once the word was out, more and more employees began making the call.

Did the **JUST IN TIME TRAINING™** platform achieve this all on its own? We would like to take full credit for the outcome, but any number or combinations of actions could have made the difference.

Part of what did happen was that employees quickly realized that they needed to start paying more attention to what is being shared with them by their peers, managers, and the print campaign because there was a consequence if they didn't. In addition to the possibility that they would be asked a question that they did not want to answer incorrectly, they could potentially lose the opportunity to earn a cash award. As a result, team members are now paying much better attention to what is going on in their store because their might be something in it for them.

### **Conclusion:**

What we do know for certain is that together with the awareness program the company launched, the **JUST IN TIME TRAINING™** platform was able to help the company accelerate knowledge retention and influence behaviors. As a result the company was able to achieve its goals and objectives.

- Reduce the growing number of internal theft issues; increase recovery of stolen goods
- Increase call traffic
- Increase the quality of leads given on the company's Integrity Pays Tip Line

The **JUST IN TIME TRAINING™** platform closed knowledge gaps, accelerated knowledge retention and the conversion of said knowledge into behavioral change and improved performance.

## Resources:

### **Knowledge Retention**

[www.airs.org/files/public/Making\\_Training\\_Stick.pdf](http://www.airs.org/files/public/Making_Training_Stick.pdf)

### **Interval Reinforcement**

<http://www.supermemo.com/english/ol/background.htm>

<http://www.smart-kit.com/s572/learning-strategies-a-study-tip-to-improve-memory/>

### **Kirkpatrick's Four Levels of Training Evaluation**

<http://www.kirkpatrickpartners.com/>

<http://coe.sdsu.edu/eet/Articles/k4levels/index.htm>

### **Keller's ARCS model**

Keller, J. M. (1987a). Development and use of the ARCS model of motivational design. *Journal of Instructional Development*, 10(3), 2 – 10.

<http://www.arcsmodel.com>

[http://www.e-learningguru.com/articles/art3\\_5.htm](http://www.e-learningguru.com/articles/art3_5.htm)

[http://www.e-learningguru.com/articles/kruse\\_bio.htm](http://www.e-learningguru.com/articles/kruse_bio.htm)

<http://coe.sdsu.edu/eet/Articles/attention/start.htm>

Dick, W. & Cary, L. (1996). *The systematic design of instruction*. New York: HarperCollins Publishers

### **Personalization of Training**

Hartley, Darin. And Kalees West (2007). TAKING-IT-PERSONALLY-TAILORING-TRAINING-FOR-MORE-RELEVANCE, ASTD