

White Paper

***Knowledge testing:
A pragmatic look at its use and
value from a business
perspective***

Stop and think before you decide to test your people's knowledge and skills. Determine what you want and what the results will actually tell you first.

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Introduction

Drop the words “test” or “testing” into a social conversation at work. I can almost guarantee that among the responses you hear will be



- “Some people are good at taking tests”
- “I just freak-out when I am faced with a test!”
- “You are only going to find out who thrives in test situations”
- “I can do the job, I just might not have memorized all the theory stuff”
- “They are just using this testing to prepare legal excuses for another round of layoffs”
- “With all this work, who has time to take let alone prepare for a test?”

I could go on; however you get the picture.

Formal skill measurement *and* reporting of fair and best practices adherence, policy or sequential practical knowledge is an essential requirement in some institutions. It might be required by law or to remain compliant. Often someone with outdated or insufficient knowledge and skill can jeopardize the health, wealth and future of other employees, your customer, or the public. This level of testing and knowledge certification is usually well conceived and exactingly and professionally deployed. I’ll talk more on certification later. First I am going to focus my attention on the type of day-to-day business tests that result from questions like:

- “Why do I feel I am not getting full value from my training dollars?”
- “Why are the sales people not making their targets ... is it a lack of knowledge? What kind of knowledge? How to sell in general or how to sell our products?”
- “Why does our service desk have a rotten reputation?”
- “Are our policy and practice manuals that obtuse ... why don’t they get it?”

Here is testing’s “golden rule” in a business context:
**Measure what your people need to know to be productive and successful in their jobs.
Don’t just test what they know!**

Make testing part of the work culture

It is 09:17 AM on a Monday and a memo pops up on all the computer screens in Cubicle City. The general broadcast memo announces that everyone's knowledge on *(fill in topic)* will be tested next Thursday. The conversation that will follow at 10:05 AM in the coffee-klatch area will resound with all or most of the comments I discussed in the introduction. This is highly likely to be a perilous and a really unrewarding approach to your search for input on knowledge levels.



The people need to be voluntarily self-committed to the goals and expectations of any and all testing. They must not be “volunteered” in the military sense! Before you structure and deploy the testing you must first and foremost effectively sell the rationale for the exercise, and get buy-in! If the people do not accept that the testing has a “hands above the table” open and known motivation and that the results will provide measurement and result analysis for the common good ... not just selfishly for the business. Beware of projecting a “public” motivation yet having a “hidden agenda” for testing. Mutually acceptable testing will reap huge benefits for all. Originally hidden and then suddenly discovered ulterior motives will eradicate any vestige of benefit or worse!

**Nobody wants to take tests.
But they will willingly if they understand and
agree to the reason and understand
what you will do with the results.**

Motivations: good, not the bad and the ugly

From hard-won experience, here are summaries or examples of the “hands-above-the-table” classification of testing motivation and baseline objectives:

1. We will better be able to focus our training strategy, effectiveness and dollars to everyone’s benefit by finding out what you know, and more importantly what you don’t know! We spend thousands on training. Is it a worthwhile investment?
2. It will tell us all if our training is learning, cost and time effective; or if we need to look for ways to improve quality, focus, retention potential, delivery timing or methodology or sheer practicality and applicability.
3. We want to know how well we are all doing in acquiring the essential knowledge we need to ensure the success of our strategy and plans for entry into our new marketplace. *(This could be combined with elements of Numbers 1 and 2 [above])*
4. We all need to know to what level our manuals, job aids, policy documents, best practices examples, and service scripts are a learning “swamp,” and find out which “tomes” need to be given a massive dose of clarity, word-fat reduction and focus.
5. The results will give the managers and their team the opportunity to have factual input to planning future knowledge needs at annual review or evaluation meetings.

If you say *(or intend!)* anything about status, categorizing, promotion or propensity to remain gainfully employed, then you had better back it up with a totally legally-defensible pre-published, iron-clad and above all fair measurement and evaluation criteria and process. This is where you need to spend money on a reputable Psychometrician (A Psychometrician is a licensed expert in the branch of psychology dealing with the measurement of mental traits, capacities, and processes.) Using testing as a “crutch” to support or fill the holes in a poorly conceived HR policy rarely has long-term positive results!

Get your testing on target from the outset!

Your goal must be to reveal and verify if the learner has learned what they were intended to learn. Hopefully, your in-house training entity or training vendor listened vigilantly to your needs and consequently provided a course or curriculum to fulfill the business need. But in any case, the testing must strive to measure: **did they learn what they were intended to learn!**



**First, determine the intent of your training:
What are you trying to accomplish?
*Test that!***

In the majority of instances business training and the complementary testing deal with work performance, productivity, best practices and behaviors, standards, and goal and strategy attainment. If there is a requirement for solely workplace “social” behaviors testing, then ensure that it is measured separately. The test to determine retained knowledge and logical deployment of the new sales campaign and marketplace tactics must precisely focus on that. Do not allow the development of the test to meander away from measuring the attainment of the course objective. This is not the place or time to reconnoiter if the staff can build coherent short sentences and eat with implements. That should have happened much earlier in another test context.

A word about good old Doc Kirkpatrick's model

“Donald Kirkpatrick's 1994 book *Evaluating Training Programs* has now become arguably the most widely used and popular model for the evaluation of training and learning. Kirkpatrick's four-level model is now considered an industry standard across the HR and training communities globally.”¹

The Kirkpatrick's evaluation model² measures training effectiveness at four levels:

1. **Reaction**
What the learners thought and felt about the training's value
2. **Learning**
The resulting increase in knowledge or capability
3. **Behavior**
Extent of behavior and capability improvement and implementation/application
4. **Results**
The effects on the business or environment resulting from the learners' performance



A cautionary note: Level 1 is often unfortunately and deplorably implemented as the Friday late-afternoon end-of-course “smile sheet” thrust upon students as they are ready to exit stage left on their way to the airport. Deploy Level 1 tests intelligently and with sensible timing. You seek a “reaction” from the learner not an agitation. I’ll talk more about course evaluations later.

The four levels make good common sense. Use them as initial and essential agreement criteria for the evaluation and testing depth and severity you really need from a business viewpoint.

Think *certification* and beware of the big stick

Certification:

“to attest as certain; give reliable information of; confirm”

“to testify to or vouch for in writing”

“to give assurance; testify; vouch for the validity of something”³

Related words:

attest, demonstrate, evidence, manifest, license.

I have highlighted several key words in **blue** in the definition of “certification” and its synonyms above. They all vividly imply that certification must be legally defensible. If a customer sues your company for underperformance, negligence or a business calamity caused by one of your “certified” employees; or a disgruntled ex-employee seeks legal compensation because your “certification’s” actual value was a resounding zero in their new career search then you might find yourself paying significant penalties.



Only consider and apply certification-grade formal skill or knowledge measurement when it is a legal and compliance requirement in your profession or marketplace. As I stated earlier in this paper, if you must have a totally legally-defensible pre-published, iron-clad and above all fair measurement and evaluation criteria and process, then you need to spend money on a reputable Psychometrician and a specialized testing institution. The US has several such practitioners with global credibility and acceptance; check for similar organizations in your country. A usual and vital part of their contract terms is to testify in a court of law if that is the final step in a knowledge or skill certification dispute.

Be very judicious and demand massively logical (read *bullet-proof*) justification for certification as a marketing ploy or differentiator for your business offerings. Has certification worked as a business enhancing differentiator? Yes! However, it was the result of exemplary thought and application. I will not bore (or horrify) you with the stories of where ill-conceived certification testing was costly, disruptive or reputation destroying.

Only apply certification when it is a business imperative!

Relevance

Several years ago I took a test at the conclusion of a “Working effectively with business people in the EU” workshop (name changed slightly to protect the identity of the test deliverer). My abiding thought at the finish was that the test spent an inordinate amount of time scrutinizing my geographical knowledge and familiarity with downtown Copenhagen, Amsterdam, London and Paris. I aced the test: I know these cities intimately. What exactly it all had to do with effective EU people and business relationships still somewhat eludes me. No, the course did not have a module entitled “Best places to entertain your guests.”



Only course content should be fuel for test question or performance simulation development!

Ensure that the test measures what is vividly or at least plainly relevant to what the learner was intended to learn. This is usually the course content or other essential prerequisite or pre-specified material.

Before we leave the topic of test relevance; there is another intrinsic value to test design and development. If you complete the test’s development and a segment of the course content is not featured among the questions, then you need to quickly and clinically decide if that content is actually required. If it not worth testing does it really need to be in the course? If it is just “nice-to-know” or (*horrors!*) clearly just module filler then you can decide its fate before you deploy the course’s pilot delivery.

Test development takes skill, thought and practice



You know the expression beloved of TV ad writers: “do not do try at home.” The design and development of *effective* tests takes considerable forethought, relevance focus, content “faithfulness” and question formulation ability. If you have ever taken a political survey, you understand the importance of question wording. There are courses, and, of course, tests, on all these skills.

I will not endeavor to condense or summarize their content here. What I will say with vehemence is that you must ensure that test development is assigned to the person who has the skill and is comfortable in performing the task. The “professional driver on a closed course” as the TV ads caution. There are companies that have the skills to help in this area.

Course Evaluations



Effective course and test development has an immediate feedback value to everyone concerned. Your course evaluations can be as important as the tests. The analysis and business-logical interpretation of the course evaluations can fuel positive action when those evaluations are created and delivered appropriately. When performing



this analysis be somewhat leery of numeric values. Was the course excellent (rating level 5) down to poor (rating level 1)? Numeric ratings are helpful sources for the end-of-course reporting and can tell you when you are really off base. However, you will gain more from “Please describe, in not more than 2-3 sentences, how and why you will use this learning to improve your work performance.” You will get much more fiber-filled and usefully nourishing responses. Some of the responses will be positive; others will be negative. All will be beneficial. Ask the question, “Will this course be useful in your work?” then you deserve to get answers like “Yes” or “No.” Thoughtfulness in course evaluation development is a conspicuous essential.

**Want more out of your course evaluations?
Ask “Why?”**

Summary and Conclusions

Effective course development is not easy and it isn't magic, but when done right can add real value to your business and your employees.



- **Focus:** Focus your efforts on the type of day-to-day business tests that result from questions that revolve around determining if the learner actually learned what they were intended to learn. Measure what your people need to know to be productive and successful in their jobs.
- **Intention:** Your testing must reveal and verify if the learner has learned what they were intended to learn.
- **Culture:** The people need to be voluntarily self-committed to the goals and expectations of any and all testing. They must accept that the testing has a “hands above the table” open and known motivation. They must understand that the results will provide measurement and result analysis for the common good, not just selfishly for the business. Otherwise, your testing will depreciate in value.
- **Motivation:** Testing must derive from a clear and unambiguous motivation, such as:
 - a) We will better be able to focus our training strategy, effectiveness and dollars to everyone's benefit by finding out what you know, and more importantly what you don't know!
 - b) It will tell us all if our training is learning effective, cost effective, and time effective. It will tell us if we need to look for ways to improve quality, focus, retention potential, delivery timing or methodology or sheer practicality and applicability.
- **Certification:** Only consider and apply formal skill or knowledge measurement and certification when it is a legal and essential requirement in your profession or marketplace.
- **Relevance:** Ensure that the test measures what is vividly relevant to what the learner was intended to learn ... the content of the course or other essential pre-declared material

“In today’s knowledge economy, the transfer of information and knowledge is critically important. An organization’s financial value is measured more by its intellectual capital than by the number of buildings and equipment it owns. Yet, knowledge for the sake of knowledge alone is of little business value. In the business world, knowledge is only useful to the extent that it is applied in meaningful performance that supports the execution of critical strategic business initiatives.

The fact is that people don’t just go around the workplace spouting their knowledge... they need to use that knowledge so they can explain a product to a customer, complete an activity or do something meaningful”⁴

That’s what testing must provide your business. It is not magic! Here is testing’s “golden rule” repeated from the Introduction of this white paper:

**Measure what your people need to know to be productive and successful in their jobs.
Don’t just test what they know!**

References

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Author Biography

David Wesley Tonkin is a proven and award winning entrepreneurial training thought leader and strategist. He is expert in identifying critical knowledge and skill needs and initiating ingenious time and cost-effective learning solutions that energize and boost employee and organizational performance. He is currently Vice President, Purposeful Clouds Academy. In his prior assignment David was the Director of Training Design and Development for the Unisys Corporation's



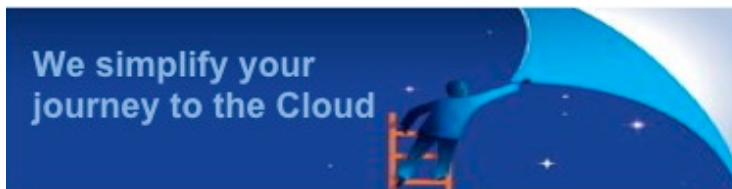
Technology Consulting and Information Systems business unit. In this role he developed the training strategy, learning designs and substantial content for instructor-led, Web-based and e-Learning Cloud Computing courses for technical, services, and sales delivery professionals worldwide.

In 2008 David and his team were honored with the “Excellence and Innovation in Corporate Learning” Award at the 9th Annual Corporate University Xchange Awards. This coveted and prestigious worldwide tribute is co-sponsored by The Wharton School of Business and Training Magazine. David's passion for, and dedication to, business training effectiveness will ensure that the Purposeful Cloud customer's specific knowledge and skills needs will motivate and guide every offering in the Purposeful Clouds Academy's curriculum.

About Purposeful Clouds

Purposeful Clouds (<http://www.purposefulclouds.com>) provides customized and standard consulting and training services to large and small organizations looking to improve agility, reduce aggravation and save significantly on IT costs by using Cloud Computing technology. These organizations rely on Purposeful Clouds experts to simplify their journey to the Cloud as they securely transition their business, processes, and applications to the Cloud or build and grow new Cloud business and related services. Because Purposeful Clouds is vendor neutral, they select the best-in-class combination of open or proprietary technologies, products, services and Cloud Service Providers. Purposeful Clouds services cover all phases of planning, implementation, on-going support, and reviews plus an all-encompassing training array to meet their client's specific short and long-term business and technology needs.

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