



▲ Change By Design Case Study

# Effective Workforce Alignment to Organizational Results:

A Handbook For Delivering Competency Modeling,  
Gap Analysis and Curriculum Architecture Development

# Overview and Context

All organizations exist for a specific reason. Whether they are a business, non-governmental organization (NGO), government entity, or military force, each is functionally designed to deliver products and services, while operating in a mission or goal achievement framework. Ideally, key performance indicator (KPI) metrics, such as units sold, individuals served, and customer satisfaction, each cohesively align with high quality processes and inputs within the organization. When that happens, the organization's output is delivered in the most effective and efficient way possible.

This is, however, an important place where things can break down for many organizations. The resources (raw materials) and inputs required to achieve optimal output must be acquired from many sources that ensure item quality. Departments and other groups within the organization must engage with these inputs through important processes to achieve their necessary results. Importantly, resources, inputs and processes and what they deliver must align with whatever organizational standards are applied to them. At the heart of each organization is its people. Each organization's workforce must be maximally effective in whatever tasks and responsibilities it is tasked to undertake. Otherwise, that organization's employees can't deliver on the products, services, mission and goals for which they are responsible.

The logic is very simple. For an organization to be maximally effective in what it delivers to customers or clients, the performance of its workforce must also effectively produce new or improved skills and related knowledge in alignment with desired organizational outcomes. Some companies, however, believe that training is a necessary, but over-rated commodity that cannot effectively deliver measurable results. Sadly, this false perception is frequently based on their not applying a research-proven learning methodology. It's frequently promulgated by people who do not have experience producing learning solutions for which Change By Design is well-known. This white paper is your guide for effectively aligning your workforce to producing desirable results.

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# Introduction to delivering a quality aligned workforce

Do you want your business or organization to develop and maintain a quality workforce that is aligned with organizational requirements? This white paper will guide you in the steps to take to do that effectively.

The first step in delivering a quality workforce aligned with organizational results is to identify, categorize and validate all tasks required of each individual job class that directly or indirectly contribute to the organizational result. For organizations committed to quality standards and organizational alignment, the determination can be made through development of either a competency model or a job task analysis. It is crucial to be an expert in both approaches, especially in addressing professions whose workers impact the lives and health of others.

The second step after completing the model or analysis phase is to determine how closely current training aligns with the required skill set. This gap analysis will permit design of a curriculum architecture in the third step from which an effective set of courses can be developed in alignment with organizational requirements and deployed. To provide examples for reference, this white paper discusses an engagement between a Fortune 500 manufacturing company and Change By Design.

During that project, Change By Design developed a customized competency model targeted specifically for the client's large sales force. This competency model included several broad categories, called domains, as well as custom definitions of each. Under each domain, Change By Design included several "competencies" and a definition for each. Then within each competency, Change By Design included specific tasks, knowledge and attitudes. The resulting 'stacking' method helped to deliver an aligned perspective of the requirements of that job class.

DOMAIN 1		DOMAIN 2	
Competency	Competency	Competency	Competency
Skill	Skill	Skill	Skill
Knowledge	Knowledge	Knowledge	Knowledge
Attitude	Attitude	Attitude	Attitude
Skill	Skill	Skill	Skill
Knowledge	Knowledge	Knowledge	Knowledge
Attitude	Attitude	Attitude	Attitude

Following the competency model build, the organization's current training offerings were each evaluated to determine:

- 1) Their level of effectiveness; and
- 2) Their alignment with specific competencies; and
- 3) Whether they should be kept, refined or retired.

Lastly, the curriculum architecture was designed for each of three levels of sales associates, with tailored approaches for each level. Because of this thorough and data-validated approach, the client had high confidence that the architecture would inform all subsequent sales associate course design and development efforts. Read on for details on the process, including how to properly research, interview, research more, and analyze data to achieve aligned results.

# Research, interviews, observations, analysis and synthesis

You likely possess a wealth of knowledge about your organization, because you work in it every day. Anyone involved in this competency-modeling process must have a full understanding of where your organization fits into its industry sector. They must also grasp how your workforce interacts with outside stakeholders. In this example project, Change By Design began with little to no knowledge about the products being manufactured by the client, its organization, its retail partners and its industry segment. However, through our extensive research, we became experts. While the client identified 10 expert sales associates within their North American operations to serve as subject matter experts (SMEs), Change By Design completed basic research on processes, terminology, and other important industry information.

The underlying goal of the research and subsequent interviews was to get a clear picture of their journey to becoming an expert sales associate. It included understanding what they wish they could have learned at the beginning to ramp up more quickly, the dynamics of the sales office which impeded or supported their effectiveness, customer characteristics, and the role that training did or did not play in each of them becoming so effective in their sales careers.

## Initial interviews

Key to maximizing understanding of any skill set is starting with the high performer. You listen to the perspective and experience of a SME on how they perform a specific set of competencies, as well as how they started their career. Then you compare expert-level performance to a beginner's thinking and performance.

Research requires due diligence, as you work thoughtfully and thoroughly to explore all the nooks and crannies of a skillset. Unexpected, yet highly relevant skillset areas that will yield substantive insights, may even be unearthed. Veering off-script can sometimes be a useful tactic for 'mining' surprising gems of valuable knowledge that otherwise would have been missed, and can lead to transformative results.

For this project, we asked interview questions such as:

- What prepared you to be so good at what you do?
- The reason I am effective today is because \_\_\_\_\_.
- When I was first starting out, \_\_\_\_\_ (information, training, etc.) would have helped me be more effective faster.
- What were the five skills (and associated knowledge) that made you effective when you first started out?
- What kind of training would have helped you:
  - 1) When you first came on board?
  - 2) After you had been there a couple of years?
  - 3) To get you where you are now?

We also asked these experts what mission-critical skills they have today that make them the experts that they were, and what it would take for all sales associates to be as effective as they were.

## Interview analysis

Our SME interviews, typically exhaustive at 90 minutes each, yielded valuable data. Each set of notes was color coded by name, then qualitative analysis was used to break down each interview into a number of relevant categories, grouping comments from all interviewees within those categories.

By taking this approach, you will find that a number of categories emerge. The categories emerging after this project's interviews included:

Background										
Customer Trends										
Internal Factors										
External Factors										
Why I Fail										
'How You Can Be Like Me'										
What Makes Me Effective										
Top 5 Skills And Priorities										
What I Wish I Had Known Earlier										
Stories										



By iteratively refining these extensive lists, Change By Design was able to illuminate a clear picture of the various skills, sub-skills, prerequisite skills, related knowledge and attitudes that a sales associate must have to do their job effectively, whether they were beginning, intermediate, or advanced.

Although it was a slower process than a standard quantitative analysis, the effort yielded a surprising number of hidden consistencies in the workforce due to the comprehensive approach and detail captured. The resulting draft list of competencies launched a second phase of research in the field.

## Deep research, field interviews and observations

Tested theories develop after a hypothesis is proven multiple times. Similarly, a set of competencies that is culled from a small sample set of SMEs must be tested before potentially applying them universally across a population. For this example project, Change By Design set the draft lists aside to dive deeply into research, using the acquired terminology to uncover any discrepancies. Leaving no stone unturned, the research included:

- Reading trade journals, related websites and chat rooms to better understand the client's industry as a larger body of interconnection.
- Reading content within the company's public website and focusing on associated essential services.
- Reading the entire repair manual for company products to gauge the depth of knowledge necessary for each level of sales associate.
- Observing sales experts who were performing their roles at seven different regional locations throughout North America.
- Interviewing and observing more than 25 members in different job classes during location visits to understand their impact on the participant sales force.
- Engaging in think-aloud protocols with sales associates at various levels of expertise to obtain a detailed understanding of the cognitive processes associated with all necessary skills at each of three levels of sales associate (beginner, intermediate, expert).

A second round of qualitative analysis activity of all notes from the research, field observations and interviews yielded a complete list of all sales associate tasks, knowledge and attitudes at the beginner, intermediate and advanced levels. The next step was to validate the competency model in two stages:

- 1) First with all sales associates within North American sales offices; and
- 2) Second through an expert panel focus group.



## Model validation

Three surveys were prepared through a synthesis of research to validate findings across the broader sales associate community throughout North America. Each survey represented sales associate skills at either the beginner, intermediate, or expert levels. Respondents were asked to:

- 1) Identify if each task listed was one in which they engaged in their sales work; and
- 2) State if each task correctly aligned with a listed competency and competency definition.

**BEGINNER SALES ASSOCIATE**

This survey will help us identify what you believe will be relevant in a beginner sales associate curriculum. It survey will take no more than 10 minutes. Here are the instructions.

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**Instructions**  
We have listed some skills and knowledge that beginning sales associates should have or develop within the first two years they are selling PRODUCE. It is not a complete set. The focus is on:

- Product Knowledge
- Competition: Product Knowledge
- Industry
- Sourcing
- Professional Development

We want you to rank the items in these groups in terms of **agreement, difficulty, importance and frequency**. Here are the questions and how you rank them:

1	How much do you agree this is what a beginner sales associate needs to be able to put into practice within their first two years at COMPANY?	Rank 1-5 (5 = strongly agree; 1 = do not agree at all)
2	How <b>difficult</b> is this for them to put into practice?	Rank 1-5 (5 = most difficult; 1= least difficult)
3	How <b>important</b> is this item for them to put into practice?	Rank 1-5 (5=extremely important; 1= not important at all)
4	How <b>frequently</b> is this used by a beginning sales associate?	5= Frequently = daily; 4= Occasionally = Monthly or weekly; 3= Rarely = quarterly or less

*Please make sure to rank these as you believe them to be...not because anyone else told you it should be ranked this way.*

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Each survey respondent was also asked to rank each Knowledge (K), Skill (S), or Attitude (A) by level of difficulty (1-5), level of importance (1-5), and frequency of use (1-5). These were denoted as KSAs.

For each, the number 5 indicated the highest level or frequency, while the number that indicated the lowest level or frequency was 1. This “DIF Analysis” is often utilized to prioritize content during training design and development, as well as items for assessment.

The post-survey analysis strongly supported our earlier findings, but there was one more step necessary. Because this model would serve as the basis for the eventual design and development of three different and extensive curricula, Change By Design convened an expert panel review over three days that considered all domains and their definitions, all competencies and their definitions, and all KSAs and their descriptions.

The result was a fully validated competency model. It was similar to, but more comprehensive than, a job-task analysis. Most importantly, it provided stable groundwork for the second of three major tasks in the project: to conduct an audit review of all existing sales associate training and determine what KSAs within the competency model were covered, as well as whether or not they were adequately covered. The training enabled Change By Design to determine recommendations for improvement.

This audit review is known as a “Gap Analysis” and details on how it is performed will follow.



## Gap analysis effort

There is an ethical responsibility to deliver what is required to support an organization's effective functioning in alignment with key performance indicators. Through application of best practice instructional design theories, models and strategies, the resulting training can and should positively impact organizations in alignment with organizational results. Therefore, any dollars that are spent on the design and development of quality instruction must actually build necessary skills, along with associated knowledge and attitudes, that learners may carry into their day-to-day work activities.

For organizations with existing curricula, it is critical that you determine the viability of current training products in terms of effective learning, learning transfer, and organizational impact. Otherwise, the potential impact of new learning solutions that are introduced may be partially lessened or even fully negated, based on learner confusion. Effective, competency-focused training principles should always be applied to avoid unforeseen problems down the line that reduce performance.

Any training that falls short of achieving the necessary learning goals of an organization should be eliminated from a competency-based curriculum, and replaced with well-designed courses that meet these criteria. Otherwise, your employees may be introducing preventable challenges to workforce alignment.

For example, Change By Design clients in the energy sector have realized great value by investing in a series of extremely well-designed, quality-focused ISO standard courses, because the cost of poor quality was so high. There is always an ROI consideration, and the cost of transforming an organization's training program must be carefully compared to the benefits gained from a well-designed set of courses aligned to job requirements. These requirements are found within the competency model and are in alignment with desired organizational outcomes. Courses may be delivered through any number of media, including classroom or face-to-face, eLearning, virtual Instructor-Led Training (vILT), blended, and even simulation-based formats.



For this project, Change By Design spent considerable time evaluating the company’s learning portfolio for sales associates, which included eLearnings and instructor-led (face-to-face) training. The examination identified learning objectives for each piece of training, evaluated against these eight criteria:

<b>Curriculum Fit</b>	<b>Curriculum Sufficiency</b>	<b>Review &amp; Practice</b>	<b>Knowledge Check Sufficiency</b>
Was this piece of training relevant to beginner, intermediate, or expert sales associates?	Did this training effectively and sufficiently cover the identified learning objectives?	Did the instruction also include opportunities for review and practice, with relevant feedback, so that skills were actually learned and rehearsed?	Were people who took this course being adequately assessed for what they had – or had not – learned from the instruction?
<b>Higher-Order Thinking Required</b>	<b>Out of Date Information</b>	<b>Complex Thinking Required</b>	<b>Complex Thinking Trained</b>
Were learners required to utilize higher-order cognitive skills, such as decision-making and problem-solving, when applying what they learned within the course learning activities and through the post-test?	Was the information portrayed in this module or course up-to-date or did it need a revamp in order to be relevant to learners?	Did the topic require the application of complex thought processes?	Did eLearning modules or courses focus on complex processes and skills requiring a high level of complex thinking for learners to successfully complete the module?

For each course or module, Change By Design also provided a summary recommendation and explanation of why the client should:

- Keep the course ‘as is.’
- Make modifications to the course.
- Eliminate the course from the list of offerings.

After the audit against the eight criteria, the client realized that none of their trainings could be utilized ‘as is’ and meet their learning goals. Change By Design recommended that the client’s existing several-day Instructor-Led Training (ILT) be delivered prior to an ILT program where the focus would then be on consolidating their skill set through an extensive table-top simulation. Change By Design also highlighted numerous existing eLearnings that fully failed to meet the client’s requirements. The client could readily see the gap within the current learning curriculum and pursued re-alignment with the competency model, as detailed in the next section.

# Design a curriculum architecture for three levels of sales associate competencies

Before building a house, it is necessary to design it. To design a house, you hire an architect. An architect is someone who thoroughly understands the theory, models and strategies related to delivering a robust structure that meets the buyer's requirements and any building codes. The same is true when designing full curricula, if an organization seeks a comprehensive workforce skill development intervention whose structure is sound.

In this example, the entire skill set had to be designed and developed for each of three levels of sales associate. After a comprehensive set of validated competencies were identified for each level, it was essential to design the curriculum architecture before the client could create individual trainings.

## Key elements in curriculum architecture consideration

Whether you are designing one course or a suite of courses, be sure to consider the following critical aspects of a curriculum, based on this project example:



### Target Audiences

For an expert to benefit from their training, a completely different 'smorgasbord' approach was required that included a variety of learning inputs, such as a conference for all three levels of sales associate, mentorship requirements with new sales associates, and "Beginning for Experts" training for review and to keep the basic skill set fresh.



### Environments

Effective instructional design requires consideration of two environments: 1) where learning takes place, and 2) where the skills and knowledge learned will be in operation. It's so important to deliver a learning experience that authentically represents work life, so that learning will expectedly be transferred from one environment (virtual) to the other (actual). The key here for the example was making the learning environment strongly representative of the environment where the sales associates operated. For this example project, and in others like it, the solution Change By Design tends to recommend is authentic case-based learning and simulations. However, for novices and intermediate learners, the recommendation also includes a heavy focus on mentorship by experts as well as peer-to-peer support.



## Skill Sequencing And Prerequisites

By this point, the developer of the competency model understood the content so well, that they could almost become an effective beginning sales associate for the client. This understanding is an essential key to Change By Design's instructional design success. Truly effective instruction design must weave within the architecture a story-like logic for learners, so they see the obvious connections among learning activities and their sequencing. Similarly to how humans enjoy telling and listening to stories with a beginning, middle and end, the brain craves logic in learning architectural designs. Effective designers lay out competency tasks as learning objectives in the correct learning sequence. They deliver prerequisite skills and knowledge in advance so new material is well-received, and insert what must be learned first at the beginning, then proceed to build upon through each new item to be learned. This is an important way Change By Design ensures learning 'sticks' with the learner.



## Success Criteria

Some organizations develop performance solutions before they understand the features of the problem which must be addressed. It's vitally important that you do not skip over this crucial step, because these criteria are the building blocks to solving the problem. For example, expert sales associates listed the following success criteria for whatever comprehensive learning solution Change By Design would develop. These included:

- Sharpen their competitive edge.
- Swap ideas with other expert sales associates.
- Develop deep insight and intuitive ability to help each customer.
- Lead the way.
- Solve customer problems.
- Live 'in relationship' with all.

Armed with that understanding of the success criteria, Change By Design was able to evaluate ideas and options to determine the optimal solutions.



## Return On Investment - ROI

No organization has unlimited revenue. Every dollar must be carefully weighed against its strategic value. We look at costs, as compared to benefits, to determine the right solution for all factors. This is the final essential aspect of designing and implementing a curriculum architecture.

**What follows is a brief look at the learning architectural designs that Change By Design delivered to this client, starting with the beginning sales associate.**

## Curriculum recommendations for the beginner sales associate

For the 'novice', or beginning sales associate learner, Change By Design developed two sets of recommendations. The first was the reduced recommendations that aligned best with the budget; the second was the 'full blown' version given ideal conditions. In both cases, the architecture consisted of three main components:

- 1) Practicum/Lab Guide
- 2) eLearning and virtual Instructor-Led Training (vILT) courses
- 3) Instructor-Led Trainings (ILT)

For this curriculum architecture, as well as for that of the intermediate and expert sales associate curriculum architectures, Change By Design developed a number of flowcharts sequencing all relevant content. Competencies with modified wording now served as learning objectives; these learning objectives were then sequenced in alignment with the learner's growing "mental model" of the beginning sales associate role.

Change By Design also broke up the curriculum into "chunks" of content to be instructed and identified the type of instruction it would be (practicum, eLearning, vILT, or ILT). The client received an overview explanation of each 'chunk' and an ordering of related competencies. Analysis information provided included:

- Course seat time.
- Inclusion in practicum or not.
- eLearning, vILT, ILT.
- Content complexity.
- Prioritization with other content to help the client make cost-related decisions (low, medium, high priority).
- Overview rationale regarding the instructional requirements for the content and its sequencing.

While the beginning sales associate curriculum was akin to a year-long deep dive apprenticeship, the intermediate curriculum was developed to more closely resemble a self-paced college course.

## Curriculum recommendations for intermediate sales associates

The structure we recommended followed this pattern:

- 1) eLearning
- 2) Case-based Prework
- 3) Virtual Instructor-Led classes
- 4) Instructor-led training

Although mentorship was a key component in the beginning sales associate curriculum, the intermediate curriculum had no ongoing mentorship component, but rather focused a segment of their effort on peer-to-peer support and learning.

Intermediate eLearnings were deeper dives into the content found within the beginning curriculum. Case-based PreWork was included to provide all corrective feedback, replacing the practicum. However, it was determined that some of the PreWork activities should not have embedded corrective feedback, but should instead be debriefed in vILT classroom settings. Also, learners would be required to pass brief assessment activities at 90% as a gateway activity through which they would need to pass to gain entrance to vILT and ILT sessions.

The two ILT sessions were framed as skill consolidation simulations, where the center of class power was again placed squarely in the hands of learners. Prior to the second ILT session, learners were required to read three key books and participate in a weekly threaded online discussion over a six month period. These discussions, as well as the close connections developed among learners within the ILT sessions, were designed to enable a stronger shared mental model and foster close collegial ties. These are the ties that would yield a cohesive network of very competent sales associates throughout North America.

The intermediate sales associates curriculum was designed specifically to create greater independence in the learners. That effort was extended even further within the expert sales associate curriculum.

## Curriculum recommendations for expert sales associates

Upon completion of Change By Design's extensive analysis, the conclusion was that expert sales associates could not be further developed using a traditional training approach. An expert becomes an expert because they already have a specific aptitude. However, the research did identify a specific area of development for the expert curriculum. These individuals strongly valued an opportunity to serve as mentors, and to review prior learned material so that they could stay on top of their game as sales professionals. The goal here was for them to sell even more products faster through their well-developed client relationships.

This white paper earlier mentioned the essential solution criteria in terms of building capacity in expert sales associates. An additional step for this curriculum was to combine the expert-level competencies that needed to be supported. The goals identified were supporting three skill sets:

- Solving customer problems creatively, which combined the following competencies: deep understanding of external business and industry influences, a deep dive on a consulting approach and an effective problem-solving approach.
- Selling through deep understanding, which not only included other KSAs under the three competencies just listed, but also looking at how to walk in the customer's shoes, and understanding the psychology of motivation.
- Maintaining and growing one's customer portfolio, which included being able to approach potential customers through relationship-based and consulting foci.

Change By Design's approach for the client was multi-pronged. There were a total of eight recommendations, of which four have been included below to serve as examples:

- 1) Deliver a conference (perhaps every three years) for all levels of sales associate to support cross-pollination of ideas and support the expert's desire to mentor newer sales associates to sharpen their current skill set. Using expert sales associates as speakers during general sessions, similar to the TED talk format, would be one way to impart understanding among all. Change By Design provided very specific guidance on all success requirements.
- 2) Pairing experts with new sales associates as one requirement to retain their 'expert' designation, which was coveted within the organization.
- 3) Bring in all competitor products for a look, feel and discussion event.
- 4) Delivering an 'Intermediate For Experts' training, where they actually return to take that curriculum along with true intermediate learners.

## Summary conclusion

Instructional designers who deliver effective results spare no effort in their research, analysis, and recommendations to meet the requirements inherent within a client project. Competency models developed are highly precise, and delivered using a 360 approach. In the example discussed, it should be clear that the client sought a comprehensive performance solution, which was derived through extreme rigor. A comprehensive approach like the methodology outlined in this white paper is not always necessarily required for every workplace.

However, there are many organizations whose mission or goals include persevering through health-critical risk, emergency life & death, and high financial loss value situations. In workforce development areas like law enforcement, medical-related categories, social service-related roles and military agencies, the wrong training can lead to staggering, negative consequences.

This methodology also serves as the evidence-based, system-thinking foundation for the following types of workforce-related activities, which Change By Design can deliver in alignment with the organization's requirements:

- ▶ Development of job descriptions
- ▶ Development of organizational performance standards in alignment with such national and international standards as ISO
- ▶ Internal behavioral auditing checklists
- ▶ Performance evaluations
- ▶ Workforce design and development in alignment with competency model specifications, as well as with desired organizational results
- ▶ Alignment of personality traits to job competencies to determine best fit
- ▶ Succession planning through workforce development/preparation
- ▶ Item writing, state- or country-wide item sampling, review workshops, and pilot testing
- ▶ Development of equivalent exams
- ▶ Psychometric analysis

We hope that this white paper has been educational and useful for your organization's learning development journey. The complexity and rigor of the work involved reflects the value produced on behalf of our clients by Change By Design. If you have questions on any components of this methodology, a project that is outside your current wheelhouse, or organizational performance goals you would like to discuss further, please do not hesitate to contact us.

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