

ISPI 2003 Conference

Learning by Doing— Using Simulations to Improve Performance

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Facilitated by:
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leveraging know-how for performance!

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Session Objectives

At the conclusion of this session, you will be able to

- ▶ Summarize the benefits that performance-based simulations offer to the enterprise and the learner
- ▶ Choose to use a simulation library approach to keep training targeted at performance
- ▶ Describe the key elements of a rapid analysis and design process that can better target “e” and other training simulations
- ▶ Contribute useful input to a simulation design and development activity



What is a Simulation?

Simulations are

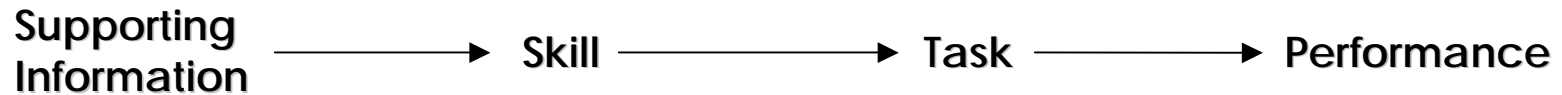
- ▶ Sort of a hybrid between a role play and a skill application exercise on steroids
- ▶ Approximations of reality
- ▶ Designed for specific purposes
- ▶ Observed and analyzed for learning purposes

For example, simulated

- ▶ Product team meetings
- ▶ Customer service conversations
- ▶ Sales calls
- ▶ Technical system troubleshooting
- ▶ Etc.



The Components of Performance



Product Features

Handling Objections

Customer Meeting

Sales Call and Proposal

Typical Objections

Sales Example

Programming Language

Debugging

Create Flowchart

Write and Test Computer Program

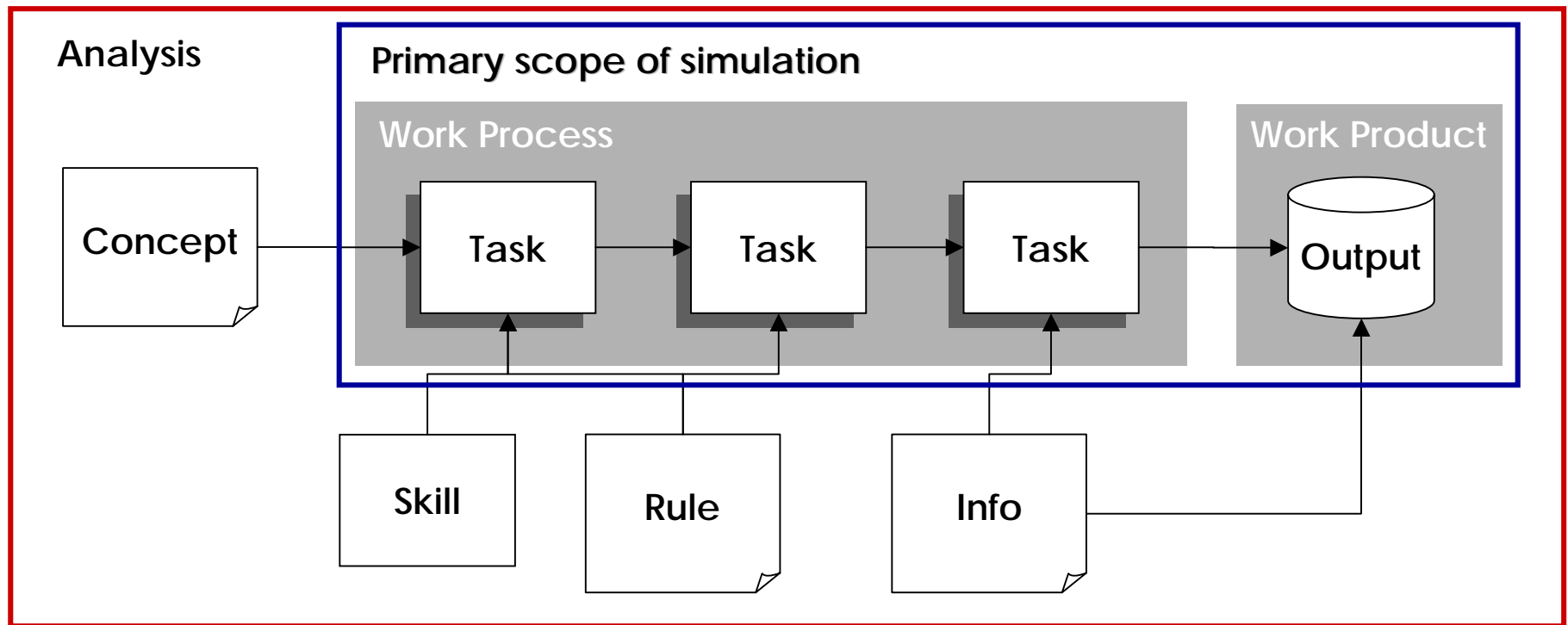
Hardware

Programming Example



Performance-Based Learning

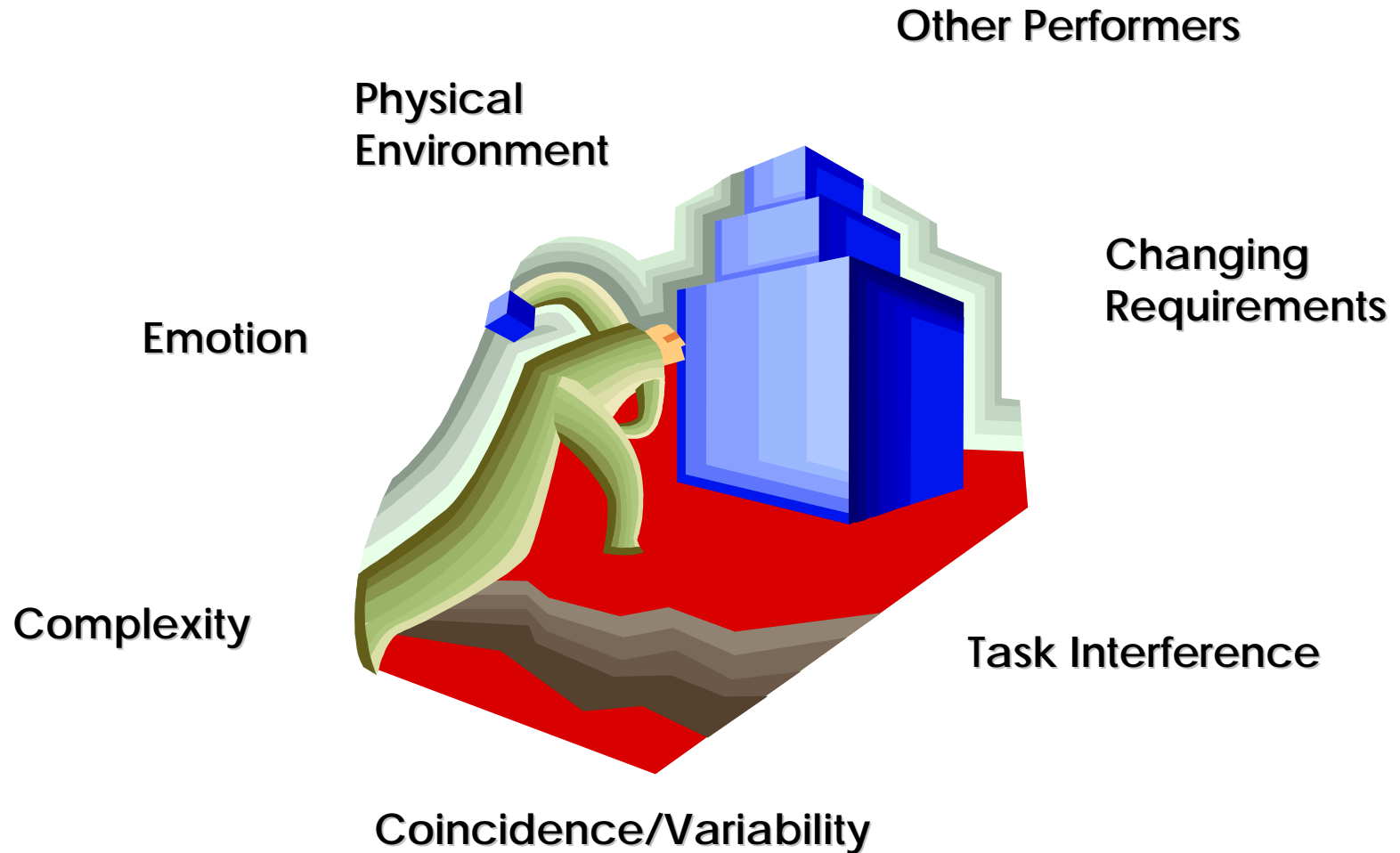
Develop ability to apply skills, knowledge, and information to perform *tasks* and produce *outputs*.





The Performance *Environment*

“Noise” factors





Simulations Provide a Rich Setting

Simulations make sense when

- ▶ Performers need to *integrate* a mix of knowledge, skills, and information in a work situation
- ▶ *Environmental* factors can influence performance
- ▶ Need to *ensure* capability to perform
- ▶ Need to *“telescope”* experience
- ▶ Need to *engage* participants

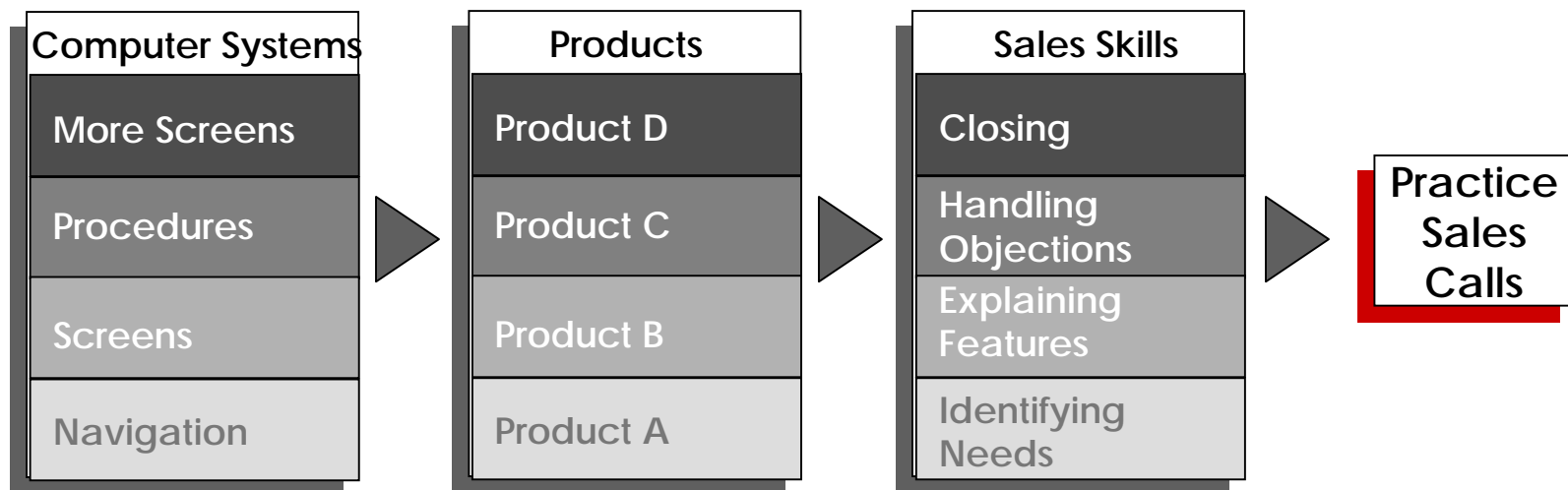


Defining the Simulation Library



Simulations in a Training Structure

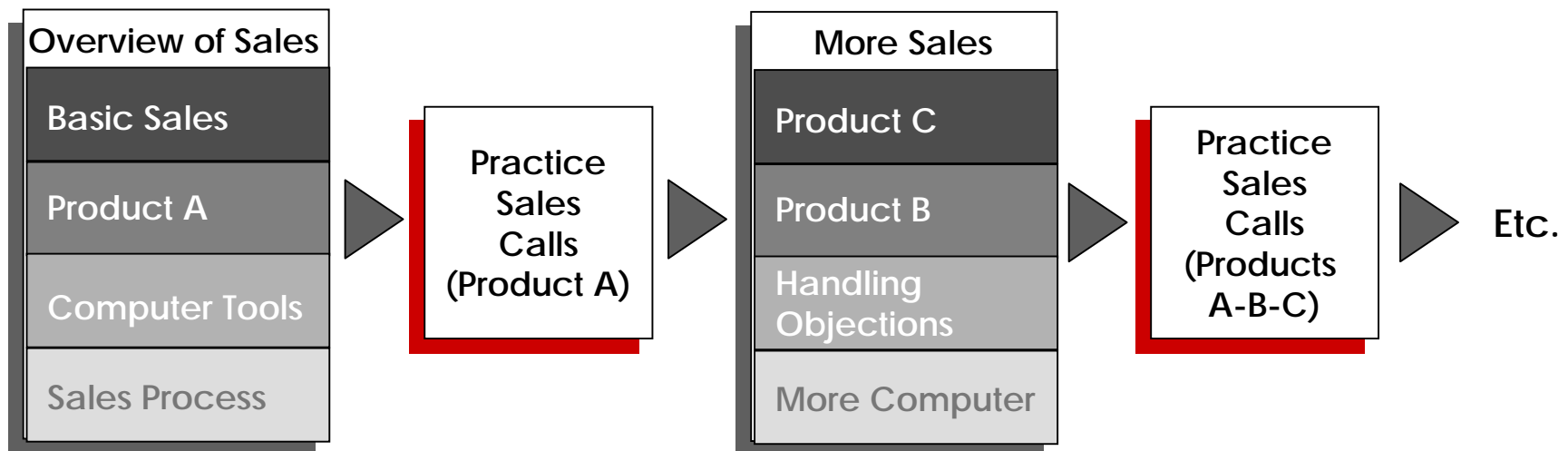
Common Training Approach—Content-Based





Simulations in a Training Structure, continued

Simulation-Based Approach



- Integrates components
- "Soak time" for skills/knowledge
- Better in-process assessment
- Reduced time to capability



Performance Analysis (Including Gaps/"Noise" Factors)

Generic Company Project Manager/Project Supervisor/Project Engineer Performance Model

Area of Performance: 2. Project Planning and Set-up (continued)

Key Outputs - Measures	Key Tasks	Roles/Responsibilities			Typical Performance Gaps	Typical Gap Causes	
		1	2	3			
<ul style="list-style-type: none"> Project Plan and schedule Complete Level of detail Key issues identified Timely Documented Linked to construction schedule 	<ul style="list-style-type: none"> Create initial plan <ul style="list-style-type: none"> Goals Work breakdown structure Schedule Special tools/skills required Team/resources (organizational chart) Risk assessment/plan Critical path Review and revise as needed based on input from <ul style="list-style-type: none"> Team General contractor Etc. Revise plan and publish baseline to <ul style="list-style-type: none"> Job files Project team 	E	E	E	<ul style="list-style-type: none"> Not complete Inaccurate—not realistic Not documented Too much detail Not communicated/ no buy-in 	<ul style="list-style-type: none"> Not a priority Done last minute Pressure to get it done Not enough time Not enough resources Think it will change too frequently — no benefit Lack of knowledge Lack of experience — not assertive with general contractor Not perceived as important 	
		E	E	S			dNK
		E	E	S			dK

- Poor proposal and estimate from sales

Role Key
 1 - Project Supervisor
 2 - Project Manager
 3 - Project Engineer

Responsibility Key
 E - Execute
 R - Review
 I - Input
 S - Support
 A - Approve

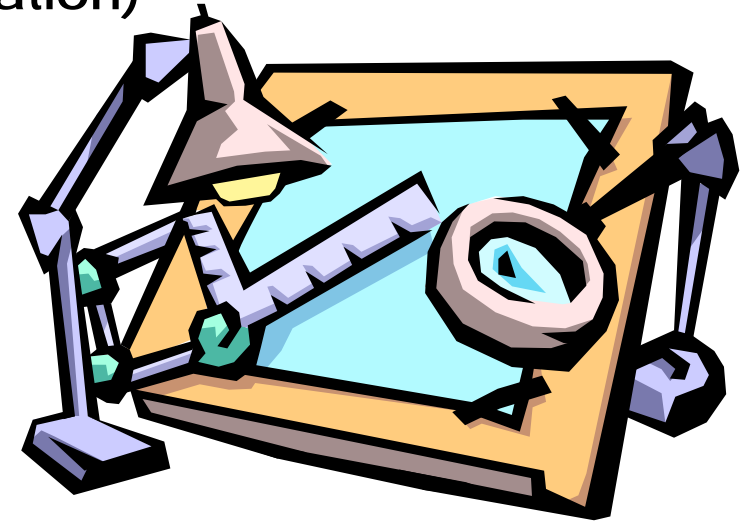
Deficiency Key
 dE - deficiency - Baseline at
 dK - deficiency - Knowledge
 dI - deficiency - Inadequate information



Simulation Design

Simulations must be designed based on instructional and practical considerations

- ▶ Concept feasibility (e.g., ability to deliver and support)
- ▶ Library/structure design
- ▶ Detailed design (individual simulation)





Overall Simulation Concept

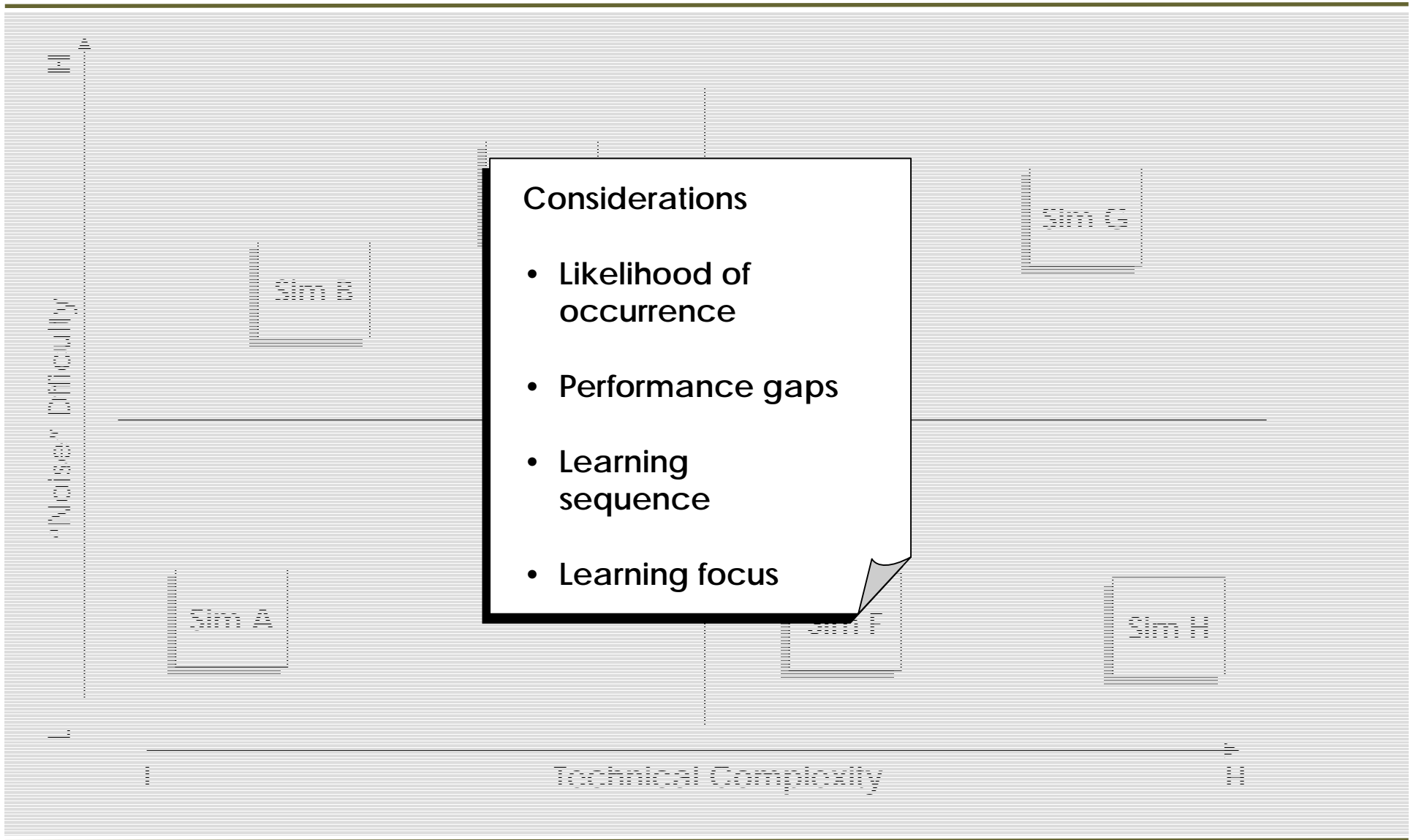
Concept Option Decisions

- ▶ Demo vs. practice
- ▶ Strategy vs. "experience"
- ▶ Group vs. individual
- ▶ Facilitated vs. computer-based
- ▶ Feedback vs. scoring





Specifying the Library





Specifying an Individual Simulation



Simulation Specification

Parameter	Example—Call Center Agent	Example—Product Team
Situation	Customer believes a payment was not recorded.	Technical problems with a feature—need to decide what to do.
Intended outcome	Customer is actually behind one payment.	Identify two alternatives to research further.
Key process steps and/or events	Customer starts angry but then calms down. Agent looks up data in ABC system.	Manufacturing blames R&D. R&D blames product manager but has ideas for solution. Product manager should explore cost and effectiveness of options.
Background details	Good account history, long-term customer. Male.	Product details, business, team structure.



Sample Scenario Specification Form

Customer Service and Collections Call Center Simulation Project			Scenario Specification Form
Scenario #	Scenario Title	Target Audience Segment	
1	Request for Payoff Amount - Retail	Customer Service	
Learning Focus	Customer Profile/Situation	Account Status	
<ul style="list-style-type: none"> • Talk up and explain payoff • Identify longer term options for reactivation 	<ul style="list-style-type: none"> • Customer requires more explanation from coverage 	<ul style="list-style-type: none"> • Retail account • Twelve previous past-dues • Late charges for the last six months • Previous late charge 	
Reason for Call	Call Events	Call Results	
How much do I owe?	<ul style="list-style-type: none"> • Discover - Twelve post-due notices • Previous/amount late charges • Ask for payment to be sent • Suggest payment options - Phonepay - Extension • Customer rejects phonepay of first 	<ul style="list-style-type: none"> • Inform customer of amount owed including all the late charges incurred • Offer to post-date check • Document the call • Advise payment arrangement • Maintain Union phonepay 	
Technical Difficulty	Link to Call Reason Code		
Interpersonal Difficulty			
L	2C, 2A		

Scenario # and Title
 Used for inventory/tracking purposes

Target Audience Segment
 Indicates whether the scenario is intended for Customer Service, Collections, or both

Customer Profile/Situation
 Description of key customer characteristics for the scenario

Account Status
 Key account characteristics at the start of the call

Learning Focus
 Description of the main tools or concepts taught/reinforced within the scenario

Reason for Call
 Customer's request/stated reason for call

Call Events
 Key events that occur during the call

Call Results
 Actions taken or initiated by the end of the call

Technical Difficulty
 • Technical = Complexity of the issue or processing steps
 • Interpersonal = Difficulty of Interacting with the customer

Link to Call Reason Code
 Identifies related procedures from the Call Reason Code binder

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Simulation Prototype



Keys to Successful Simulation Delivery

Simulations may require additional and different organizational support to be delivered effectively over time.

Set-Up	<ul style="list-style-type: none">• Focus on process• Boundaries for improvisation• Safe environment• Facilities
Facilitator Prep (if applic.)	<ul style="list-style-type: none">• Procedures• How to track performance and provide appropriate feedback• How to cheerlead the group
Debrief	<ul style="list-style-type: none">• Clarify what happened• Provide feedback on performance• Generalize application to real environment



How simulations build know-how

Simulations can

- ▶ Drive increasing standardization
- ▶ Raise performance variation that is “under the surface”
- ▶ Create deeper knowledge about the performance





Expanded Applications

Simulations can also be used for

- ▶ Qualification testing
- ▶ The basis for organizing curriculum
- ▶ For developmental testing of new processes, products, and tools





For More Information . . .

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See Also

Articles available

- ▶ “Project Profile: Developing a Computer-based Call Simulator System and Training *or 'High-Five Me, I Sold Voicemail!'*”
- ▶ “Simulation for Corporate Training”

Other topics also available in the “Library” section of www.prhconsulting.com

