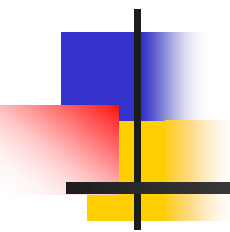


Managing Learning For Effectiveness and Efficiency



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Objective

- Equip you to be better managers of the learning function
 - So you can improve effectiveness and efficiency
 - Requires
 1. Strategic approach to planning
 2. Analytical framework for decision making
 3. Understanding of costs and benefits
 4. Practice
 - A new mental model for some



Definitions

- Effectiveness: Doing the right things
 - Align learning to business goals
 - Choose the right learning solutions
 - Creating a business plan with specific, measurable goals
- Efficiency: Executing your objectives at least cost or highest return
 - Including all visible and invisible costs
 - Choose the right duration



Agenda

- Effectiveness
 - Alignment, Business Plan, Change mgt
 - Right learning solution
- Efficiency
 - Costs
 - Cost reduction opportunities
 - Net benefits
 - Using costs, benefits, and ROI to select solutions



Effectiveness:

Doing the Right Things

The Strategic Decisions:
Which Learning To Do?



The Strategic Alignment of Learning to Business Goals

- Process must start with the business goals
 - Consult your strategic and business plans
 - If they don't exist, talk with your leaders
 - You need to know the specific, measurable goals
- Then determine whether learning can help achieve those goals
 - Large or small impact
 - What else is required for success?
 - What role must goal's owner play?



The Strategic Alignment of Learning to Business Goals

- With goal's owner
 - Decide on specific target audience
 - Specific learning interventions
 - Agree on specific, measurable learning goals (Levels 1,2) as well as business impact
 - Discuss change management and role of owner as sponsor
- All this is done proactively
 - Strategic vs. reactive
- You may need to prioritize
 - Should reflect business priorities

Example of Goal Statement Showing Strategic Alignment of Learning to Business Goals

Priority	Strategic Goal	Metric	Learning Program	Business Plan Goals for Learning						
				Impact of Learning	New Courses	Partici- pants	Level 1	Level 2	Level 3	
1	Increase Sales	20%	Marketing program for dealers	Medium	1	500	85%	80%	80%	
			Product program for employees	Medium	3	200	90%	90%	90%	
2	Reduce Defects	10%	Design courses for engineers	Medium	5	300	85%	85%	100%	
3	Reduce Injuries	25%	Safety courses for workers	High	10	2000	80%	80%	90%	
			Safety courses for managers	High	2	100	90%	90%	100%	
4	Improve Leadership	5%	Leadership for supervisors	Medium	1	150	95%	NA	85%	
5	Increase Retention	30%	Individual Development Plans	High		2500				
			Prof. development courses	High		2000	80%			
Total Top Five Priorities						22	7750	86%	85%	91%



The Strategic Alignment of Learning to Business Goals

- Ideally, create a written business plan for learning
 - Shows the alignment to business
 - Shares the strategic alignment and learning needs analysis process
 - Includes your detailed work plan for learning for the coming year
 - With specific, measurable objectives
 - Completed as part of the overall business planning process
 - Approved by a governing body or CEO



Keys to Effective Learning: Strategic Summary

- Strategically align to business goals
 - In concert with goals' owners
 - Address all business priorities
- Create a Business Plan for learning
 - Specific, measurable goals
 - Approved by governing body or CEO
- Look for opportunities where
 - Sponsorship is strong
 - Change management is strong



Effectiveness:

Doing the Right Things

The Tactical Decisions: What Is
the Right Learning Solution?

What Is Most Effective Type of Learning Solution?



- Many choices
 - Instructor Led (ILT)
 - Web Based (WBT)
 - Blended
 - Simulation
 - Performance Support
 - Coaching, Mentoring
 - Knowledge Sharing

What Is Most Effective Type of Learning Solution?



- Depends on many factors
 - Nature of the learning need
 - Is it a skill, ability or knowledge?
 - Is interaction required?
 - Must it be practiced?
 - Nature of the learner
 - What type of learners are they?
 - Are they comfortable with a PC?
 - Previous learning experiences.. good or bad?



What Is Most Effective Type of Learning Solution?

- Factors (continued)
 - Demographics of target audience
 - Number
 - Geography, Time Zones
 - Languages, Cultures
 - Where will they learn?
 - Desk, shop floor, home, classroom?
 - What technology is available?



What Is Most Effective Type of Learning Solution?

- Factors (continued)
 - Speed of deployment
 - Do we need it in 3 weeks?
 - Can we wait 6 months?
 - Do we have good instructors?
 - How consistently must message be delivered?
- The Needs Analysis should answer these questions

What Is Most Effective Type of Learning Solution?



- Instructor Led (ILT) best suited for
 - Discussion and dialogue
 - Low tech applications
 - Skill, ability practice
 - Relatively fast development
 - Smaller, homogeneous groups
 - ...

What Is Most Effective Type of Learning Solution?



- Web Based (WBT) best suited for
 - Knowledge transfer
 - Applications where consistency is important
 - Learners are PC literate
 - Learners want to proceed at their own pace
 - Knowledge test is required
 - Audience is geographically dispersed and in small groups
 - Reference, look up after class
 - ...



What Is Most Effective Type of Learning Solution?

- Simulation is best suited for
 - Interaction, role playing
 - Where practice is important
 - Where there may be a number of equally good outcomes
 - Where the experience is critical to learning and later application
 - Learners are hands on
 - ...

What Is Most Effective Type of Learning Solution?



- Performance Support is best suited for
 - Infrequent tasks
 - Complicated procedures
 - Where skipping a step is serious
 - ...



Keys to Effective Learning: Tactical Summary

- Choose the right learning solution(s) for each goal
 - Start with the Needs Analysis
 - Understand the need, audience, environment
 - ILT, WBT, Simulation, or Performance Support
 - Depends on numerous factors
 - Combine them for blended solutions



Efficiency: Executing Your Objectives at Least Cost and Highest Return

Know Your Costs



Costs:

- Visible costs
 - Labor and related (L&R)
 - Includes wages + health care + employer paid taxes + pension +
 - Related ranges from 25% to 100% of Labor
 - Overhead (SGA: sales, general and admin)
 - External (consultants, vendors, telephone, etc)
 - Internal (computer support, office space, etc)
 - Total visible



Costs

- Visible Costs (continued)
 - Useful breakdowns
 - Labor & Related (L&R)
 - L&R per person (e.g. \$90,000)
 - Fully burdened Labor & Related
 - Adds in all the non project related costs like telephone, office supplies, internal IT support, rent, HR support, etc.
 - Fully burdened L&R per person (egg \$150,000)
 - Use this in estimating project costs
 - External project costs for development and delivery
 - These vary depending on the projects.



Costs

- Invisible Costs = Opportunity Costs
 - Equals value of participants' time
 - Critical for estimating true cost of a learning solution
 - Use L&R to determine Opportunity Costs
 - For key target audiences like leaders, engineers, factory associates and a general audience
 - Your accountants can help



Costs

- Opportunity Costs (continued)
 - Example: What is Opportunity Cost for 2 day ILT for 200 leaders?
 - Labor & Related is \$100/hr
 - Opp Cost=200 leaders x 16 hours x \$100/hr
 - = \$320,000 !!
 - Probably more than your development and delivery costs
 - Watch out for large ILT audiences !!!



Cost Summary

- Know your costs
 - Labor & Related, and L&R per person
 - Fully burdened L&R per person
 - External Development & Delivery Costs
 - Opportunity Costs for target audiences
- Use fully burdened L&R plus external Development and Delivery to budget and quote project costs
- Use above plus Opportunity Costs to evaluate learning solutions



Efficiency: Executing Your Objectives at Least Cost and Highest Return

Opportunity Cost Reduction
Opportunities



Use WBT and Performance Support Where Appropriate

- WBT
 - Reduces travel time to classroom
 - Reduces time in class
 - Caterpillar experience: WBT saves approx. \$100 per person for a 30 minute WBT that replaces 60 minute ILT
- Performance Support
 - No travel time or class time



Efficiency: Executing Your Objectives at Least Cost and Highest Return

Calculating the Net Benefits of Learning



Net Dollar Benefits & ROI

- Calculate Net Dollar Benefits from learning
 - **Net Benefits** = Gross Benefits – Total Costs
 - Gross Benefits = Dollar benefit of learning's impact
 - Costs = Development + Delivery + Opportunity
 - **Net Benefit per Person** = Net Benefits / participants
- **ROI %** = Net Benefits / Costs



Impact of Learning

Net Dollar Benefits for Top Ten Programs (Millions of Dollars)

<u>Program</u>	<u>Net Benefit Per Person</u>	<u>2006 Actual</u>		<u>2007 Plan</u>	
		<u>Participants</u>	<u>Net Benefits</u>	<u>Participants</u>	<u>Net Benefits</u>
1 Knowledge Sharing	\$500	10,012	\$5.0	10,000	\$5.0
2 Leadership Program for Supervisors	\$5,000	498	\$2.5	700	\$3.5
3 Leadership Program for Managers	\$10,000	96	\$1.0	200	\$2.0
4 Safety Initiative	\$2,000	9,124	\$18.2	12,000	\$24.0
5 Quality Initiative	\$3,000	1,279	\$3.8	1,500	\$4.5
6 Marketing Program for Dealers	\$5,000	578	\$2.9	700	\$3.5
7 Engineering Curricula Phase 1	\$4,000	25	\$0.1	500	\$2.0
8 Manufacturing Curricula Phases 1&2	\$1,000	1,954	\$2.0	2,400	\$2.4
9 Business Acumen	\$1,000	956	\$1.0	1,000	\$1.0
10 Change Management	\$2,500	752	\$1.9	950	\$2.4
Total		===== 25,274	===== \$38.3	===== 29,950	===== \$50.3

Note: Numbers are illustrative and for example.
Your net benefit will depend on your programs.



Net Dollar Benefits

Steps in Determining Them

- Talk with sponsor or owner to understand the impact learning is expected to have
 - If there is already a net dollar benefit associated with the initiative, decide what portion may be due to learning
 - Be very conservative
 - If not, make a reasonable but very conservative estimate of learning's impact
 - Discuss with sponsor, others, SMEs
 - Reduce until everyone agrees the estimate is conservative



Net Dollar Benefits

Steps in Determining Them

- Examples
 - Two day leadership program => 1% increase in productivity for leader and direct reports
 - In depth marketing program => .5 % increase in price realization or market share
 - Engineering drawing program => 20% reduction in drawing errors
- These are Level 4 Impact estimates



Net Dollar Benefits

Steps in Determining Them

- Convert increase in productivity, sales, etc to gross benefit dollars (Level 4 impact to Level 5 \$)
 - Use Labor & Related cost as appropriate
- Calculate costs, including opportunity costs for target audience
- Calculate net benefit
 - Also net benefit per person, ROI
- After deployment, then you might conduct a study to determine actual net benefit and ROI %



Net Dollar Benefits

Steps in Determining Them

- Calculate Gross Dollar Benefit
 1. Determine or estimate Level 4 impact (like a 2% increase in productivity)
 2. Find out annualized labor & related cost (like \$40,000/yr)
 3. Multiply (1) x (2)
(.02 X 40,000 = \$800/participant)
 4. Multiply (3) x number of participants
(\$800/participant x 30 participants = \$24,000)
 5. **Answer is \$24,000**



Net Dollar Benefits

Steps in Determining Them

- Calculate Total Costs
 - Visible Costs
 - Add Development and Delivery costs
(like $\$10,000 + \$4,000 = \$14,000$)
 - Opportunity Costs
 - Find out hourly Labor & Related cost
(like $\$40,000 / 2000 \text{ hrs per yr} = \$20/\text{hr}$)
 - Multiply by number of hours in course
(like $\$20/\text{hr} \times 8 \text{ hours} = \$160 \text{ per participant}$)
 - Multiply by number of participants
(like $\$160 \times 30 \text{ participants} = \$4,800$)
 - Add Visible and Opportunity Costs
 - **Answer is $\$14,000 + \$4,800 = \$18,800$**



Net Dollar Benefits

Steps in Determining Them

- Calculate Net Dollar Benefits
 - Gross Dollar Benefits – Total Costs
(like \$24,000 - \$18,800 = **\$5,200**)
- Calculate Net Benefit per Person
 - Net Benefits / Participants
(like \$5,200 / 30 = \$173.33, round to **\$173**)
- Calculate ROI
 - ROI = Net Benefits / Total Costs
(like \$5,200/\$18,800 = 27.7%, round to **28%**)



Efficiency: Executing Your Goals at Least Cost and Highest Return

Using Net Benefits and ROI to
Choose the Specific Learning
Solution and Duration



The Least Cost or Highest Return Solution

- Goal is to choose a solution that
 - Meets your needs
 - While also providing the highest return for your investment (ROI)
 - This will maximize the impact of your learning budget
- If your need is precise, find the least cost option (including opportunity costs)
- If there is latitude, look for the highest return for your investment (ROI)

Options Available to Improve Customer Support

Target Audience= 50
 Strength of Sponsorship= Very High
 Strength of Change Management= High

	<u>Total Costs</u>	<u>Total Cost per Person</u>	<u>Gross Benefit per Person</u>	<u>Net Benefit per Person</u>	<u>ROI</u>
ILT					
Five Day	\$175,000	\$3,500	\$12,000	\$8,500	243%
Two Day	\$90,000	\$1,800	\$5,000	\$3,200	178%
One Day	\$50,000	\$1,000	\$2,000	\$1,000	100%
WBT					
Eight Hours	\$60,000	\$1,200	\$1,800	\$600	50%
Simulation					
Two Day	\$150,000	\$3,000	\$7,500	\$4,500	150%
Performance Support	\$20,000	\$400	\$1,500	\$1,100	275%



The Highest Return Option for Most Efficient Duration

- Usually there is considerable latitude in deciding exactly what will meet your needs
 - The need is often not precise, so it may be met by different solutions and durations
 - ILT may be 2 or 3 days
 - WBT may be 2 or 4 hours
 - Blended learning may be an option
 - Practical considerations may influence your choice
 - Unwillingness to attend a 5 day ILT
 - So, 2 day ILT combined with WBT is the best you can do



The Highest Return Option for Most Efficient Duration

- The most efficient solutions typically will be where
 - The marginal net benefit is the highest
 - In other words, you get the most from the last amount spent. Once you begin to get less, you should consider funding other initiatives.
- For the simulation, you will have gross benefits and ROI as well
 - Generally, ROI will provide the same guidance



The Highest Return Option for Most Efficient Duration

- Key here is to understand the mental model
 - Knowledge transfers at different rates to enable the targeted change in behavior
 - Sometimes, key knowledge can be transferred in first 4 or 8 hours
 - Other times, the “payoff” won’t come until the third day
 - Depends on the audience, complexity and volume of subject matter
- The concept is helpful even when you don’t know the gross or net benefits
 - We are refining your “professional judgment”

Determination of Efficiency

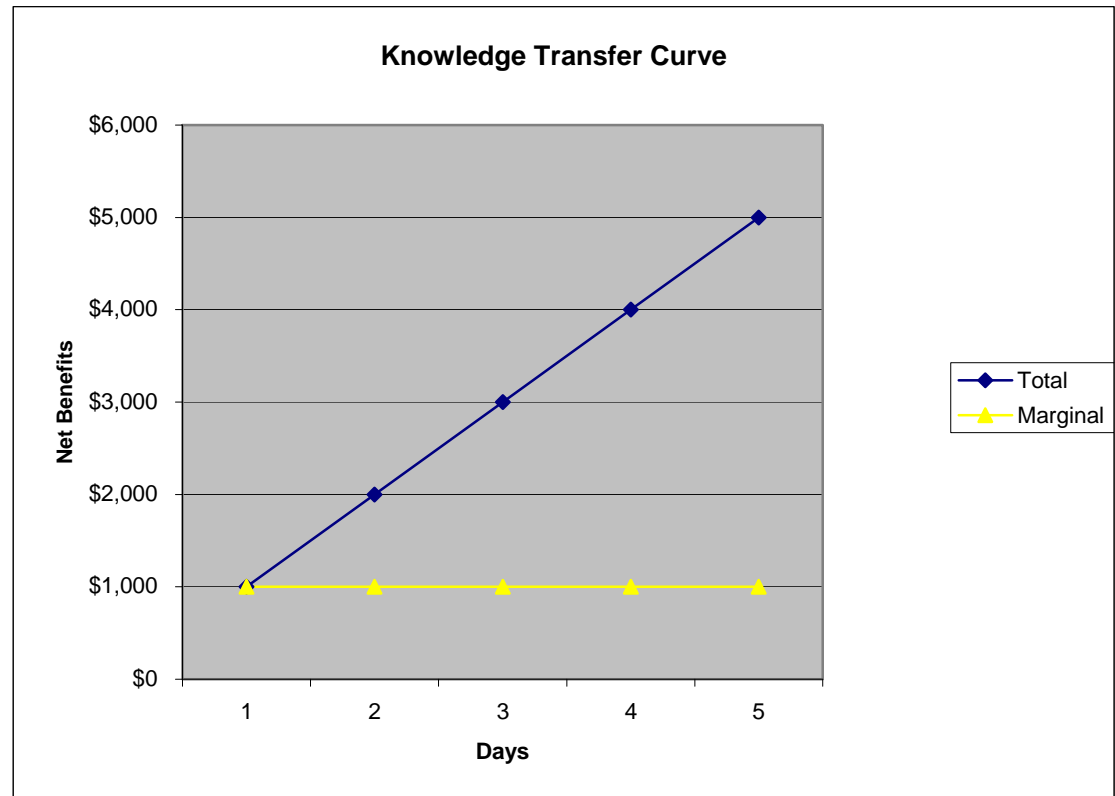
Example of Constant Returns

Net Benefits per Person

<u>Days</u>	<u>Total</u>	<u>Marginal Increase</u>
1	\$1,000	\$1,000
2	\$2,000	\$1,000
3	\$3,000	\$1,000
4	\$4,000	\$1,000
5	\$5,000	\$1,000

Decision Rule

Decide on other factors



Determination of Efficiency

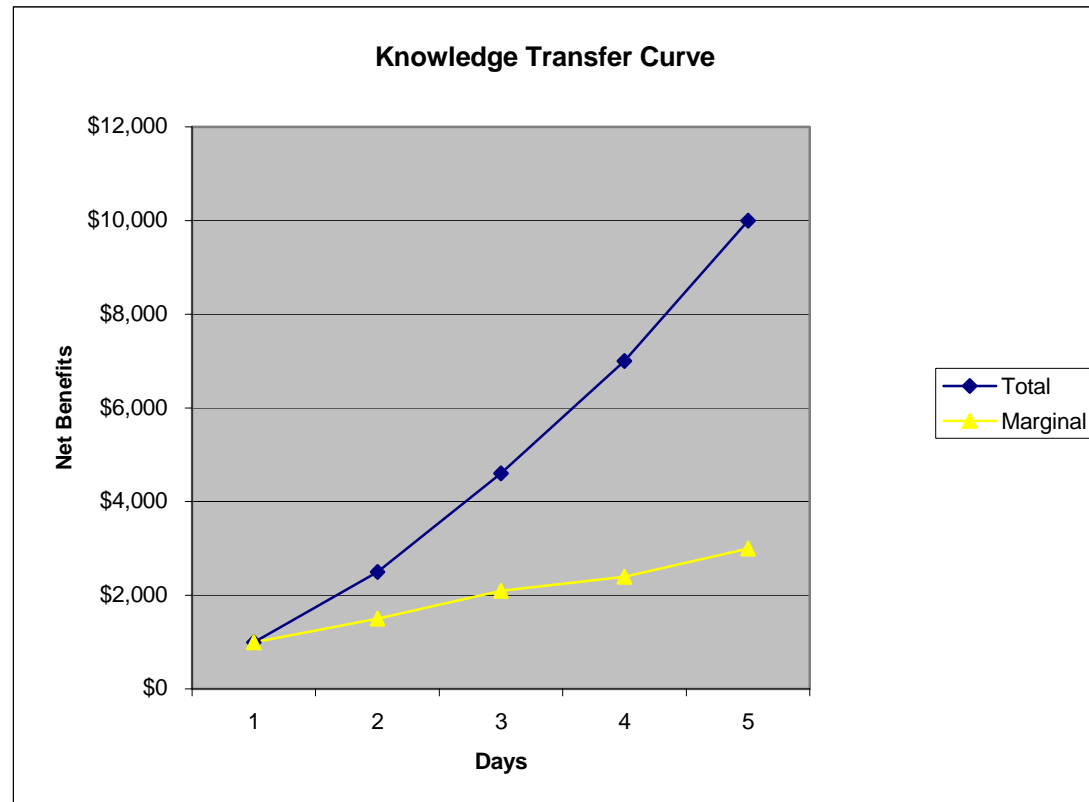
Example of Increasing Returns

Net Benefit per Person

<u>Days</u>	<u>Total</u>	<u>Marginal Increase</u>
1	\$1,000	\$1,000
2	\$2,500	\$1,500
3	\$4,600	\$2,100
4	\$7,000	\$2,400
5	\$10,000	\$3,000

Decision Rule

Do as much as appropriate



Determination of Efficiency

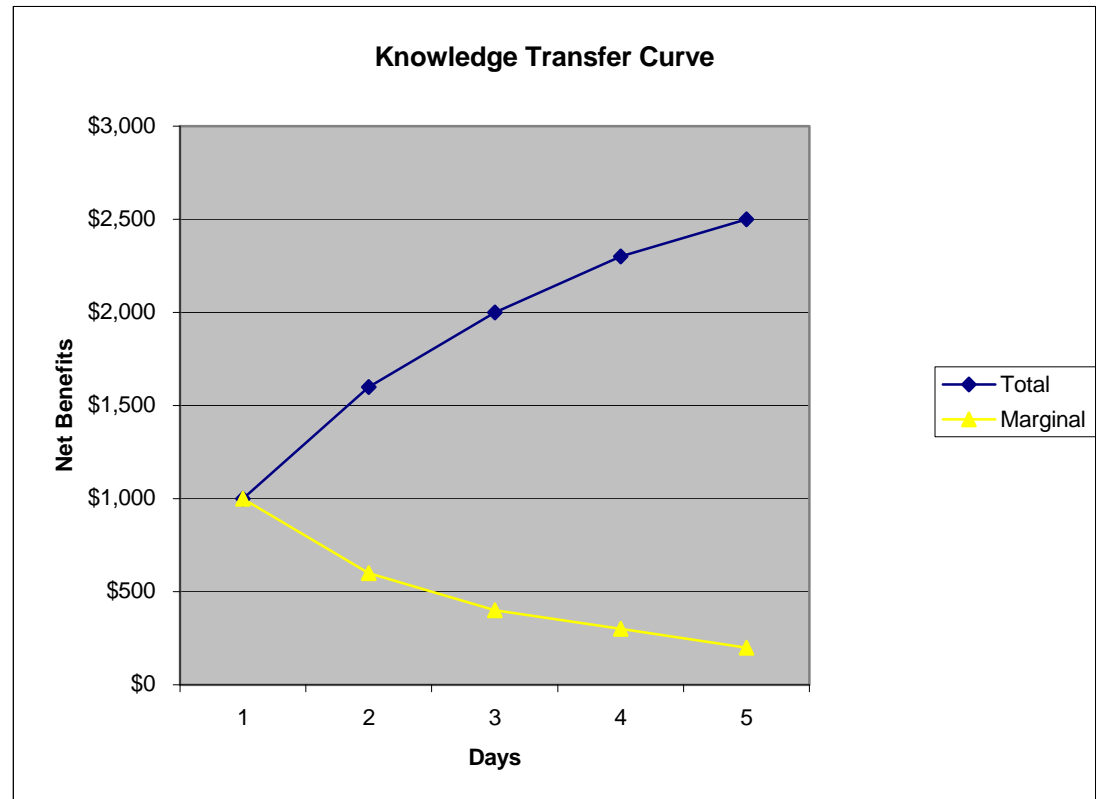
Example of Decreasing Returns

Net Benefit per Person

<u>Days</u>	<u>Total</u>	<u>Marginal Increase</u>
1	\$1,000	\$1,000
2	\$1,600	\$600
3	\$2,000	\$400
4	\$2,300	\$300
5	\$2,500	\$200

Decision Rule

Do as little as appropriate



Determination of Efficiency

Example of Mixed Returns 1

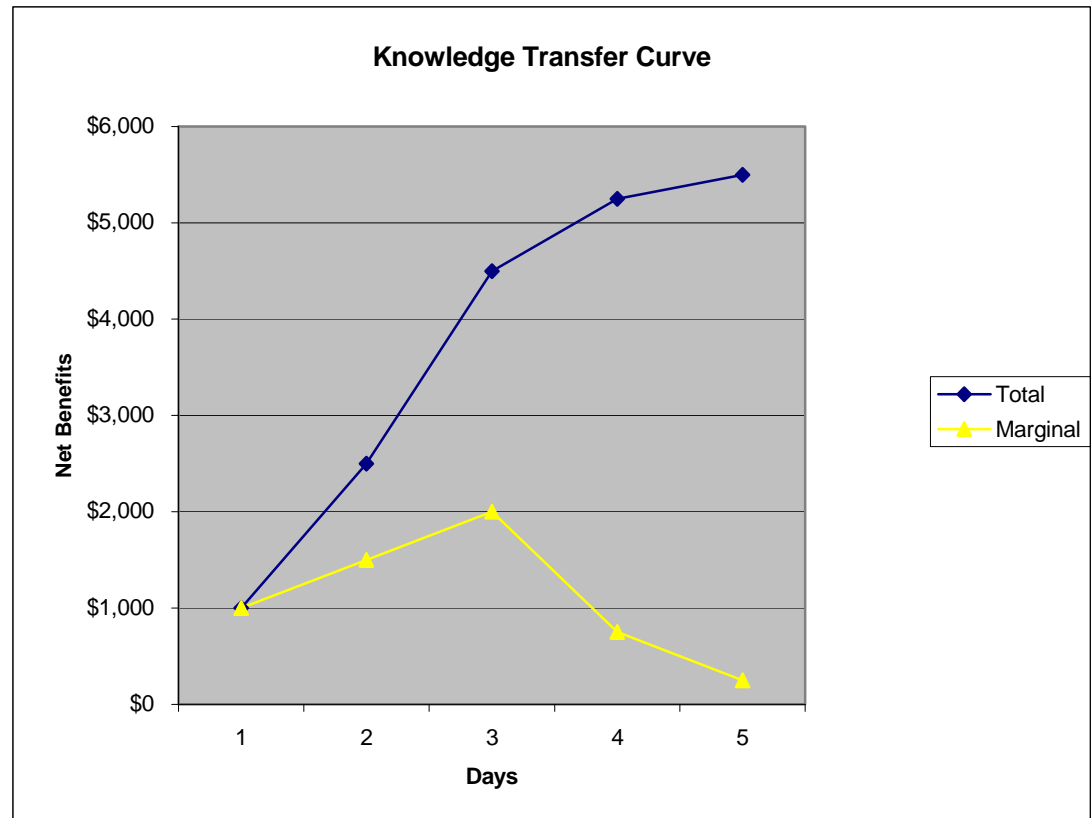
Net Benefit per Person

<u>Days</u>	<u>Total</u>	<u>Marginal Increase</u>
1	\$1,000	\$1,000
2	\$2,500	\$1,500
3	\$4,500	\$2,000
4	\$5,250	\$750
5	\$5,500	\$250

Decision Rule

Target sweet spot:

Highest marginal Net Benefit



Determination of Efficiency

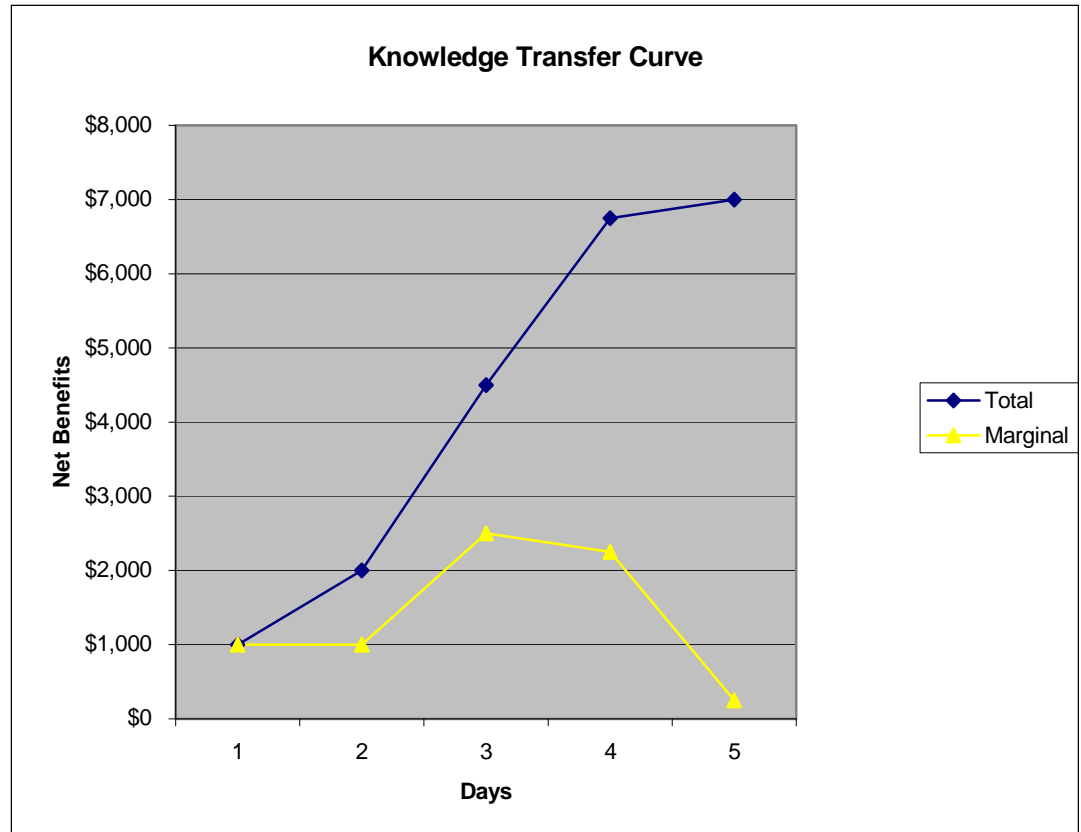
Example of Mixed Returns 2

Net Benefit per Person

<u>Days</u>	<u>Total</u>	<u>Marginal Increase</u>
1	\$1,000	\$1,000
2	\$2,000	\$1,000
3	\$4,500	\$2,500
4	\$6,750	\$2,250
5	\$7,000	\$250

Decision Rule

Target sweet spot:
Highest marginal Net Benefit



Determination of Efficiency

Example of Mixed Returns 3

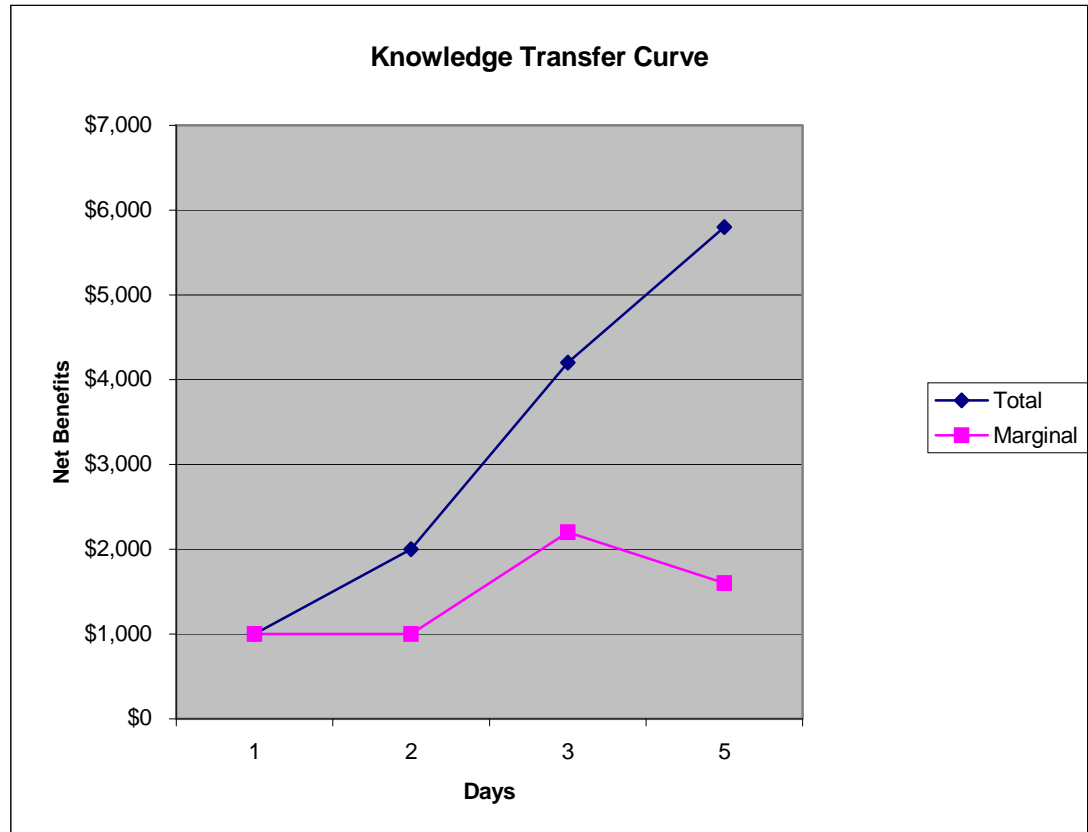
Net Benefit per Person

<u>Days</u>	<u>Total</u>	<u>Marginal Increase</u>
1	\$1,000	\$1,000
2	\$2,000	\$1,000
3	\$4,200	\$2,200
5	\$5,800	\$1,600

Decision Rule

Target sweet spot:

Highest marginal Net Benefit



Determination of Efficiency

Example of Mixed Returns 4

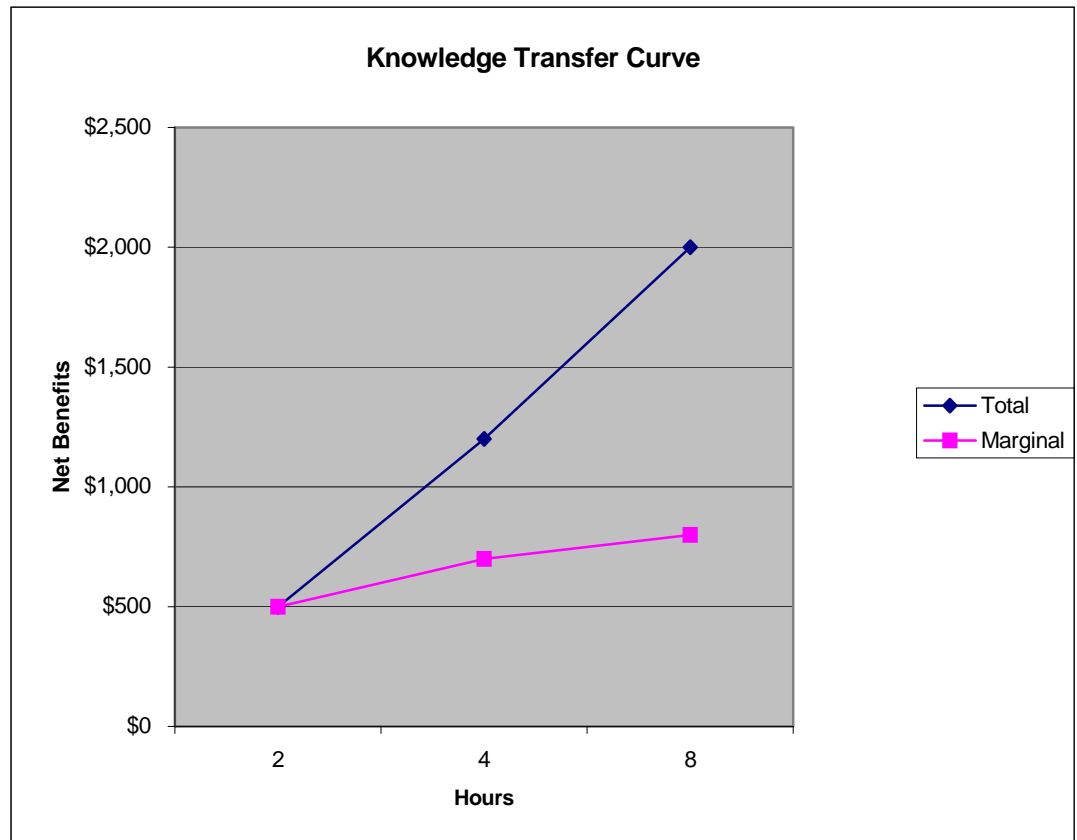
Net Benefit per Person

<u>Hours</u>	<u>Total</u>	<u>Marginal Increase</u>
2	\$500	\$500
4	\$1,200	\$700
8	\$2,000	\$800

Decision Rule

Target sweet spot:

Highest marginal Net Benefit





Recap: Decision Rules for Most Efficient Duration

- Constant returns
 - Decide on other factors
- Increasing returns
 - Do as much as appropriate
- Decreasing returns
 - Do as little as appropriate
- Mixed returns
 - Target the sweet spot: highest marginal net benefit (usually highest ROI)



Guidance for the Simulation

- First, decide on your strategy (Effectiveness)
 - What business goals will you support?
 - What learning solution(s) would be best?
 - ILT, WBT, Simulation, Performance Support, Blended
 - Look at Net Benefit per Person and ROI
- Second, decide on duration (Efficiency)
 - 1,2,3 or 5 day ILT
 - 2,4 or 8 hr WBT
 - 1 or 2 day Simulation
 - Use Marginal Net Benefits and ROI to choose

Options Available to Improve Customer Support

Target Audience= 50
 Strength of Sponsorship= Very High
 Strength of Change Management= High

		<u>Total Costs</u>	<u>Total Cost per Person</u>	<u>Gross Benefit per Person</u>	<u>Net Benefit per Person</u>	<u>Marginal Net Benefit per Person</u>	<u>ROI</u>
ILT							
Five Day		\$175,000	\$3,500	\$12,000	\$8,500	\$1,900	243%
Three Day		\$120,000	\$2,400	\$9,000	\$6,600	\$3,400	275%
Two Day		\$90,000	\$1,800	\$5,000	\$3,200	\$2,200	178%
One Day		\$50,000	\$1,000	\$2,000	\$1,000	\$1,000	100%
WBT							
Eight Hours		\$60,000	\$1,200	\$1,800	\$600	-\$200	50%
Four Hours		\$35,000	\$700	\$1,500	\$800	\$200	114%
Two Hours	Additive	\$20,000	\$400	\$1,000	\$600	\$600	150%
Simulation							
Two Day		\$150,000	\$3,000	\$7,500	\$4,500	\$2,100	150%
One Day		\$80,000	\$1,600	\$4,000	\$2,400	\$2,400	150%
Performance Support	Additive	\$20,000	\$400	\$1,500	\$1,100	\$1,100	275%



The Simulation

- You are CLO of Quantum State Inc., a successful and growing company which designs and manufactures state-of-the-art high-tech devices for a discerning global customer base.
- Your Annual Business Plan for Learning is due to the CEO tomorrow.
- What will you recommend and why?



Manage Learning for Effectiveness and Efficiency

- To maximize Effectiveness
 - Align learning to business goals
 - Select the right learning solutions
 - Net Benefit per Person and ROI can help
- To maximize Efficiency
 - Know your costs
 - Including Opportunity Costs
 - Look for ways to reduce Opportunity Costs
 - Use marginal net benefit and ROI concepts to select the highest return/least cost duration