HBSP Global Supply Chain Simulation Introduction

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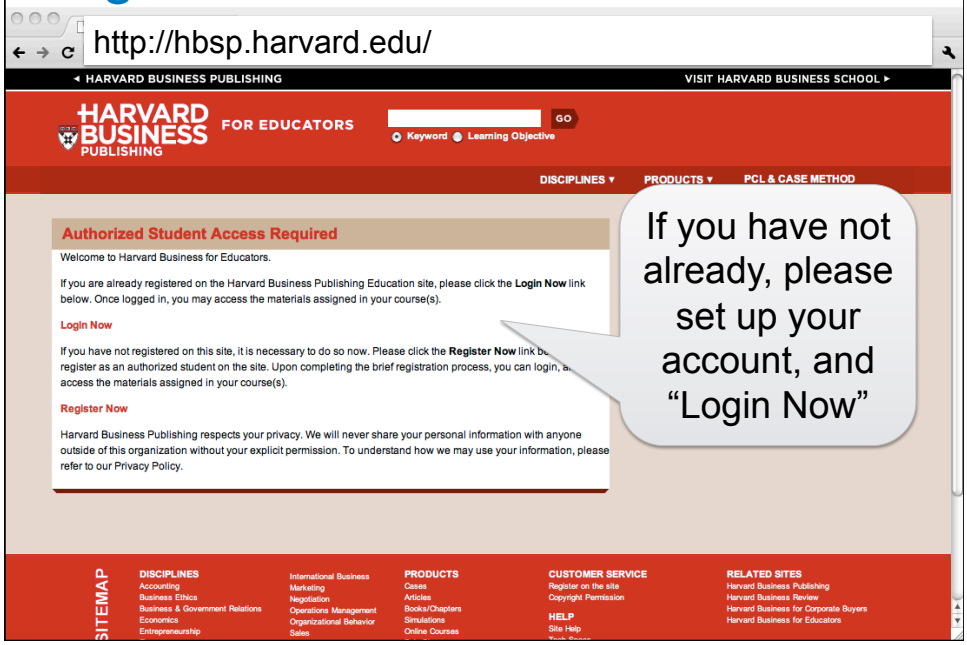

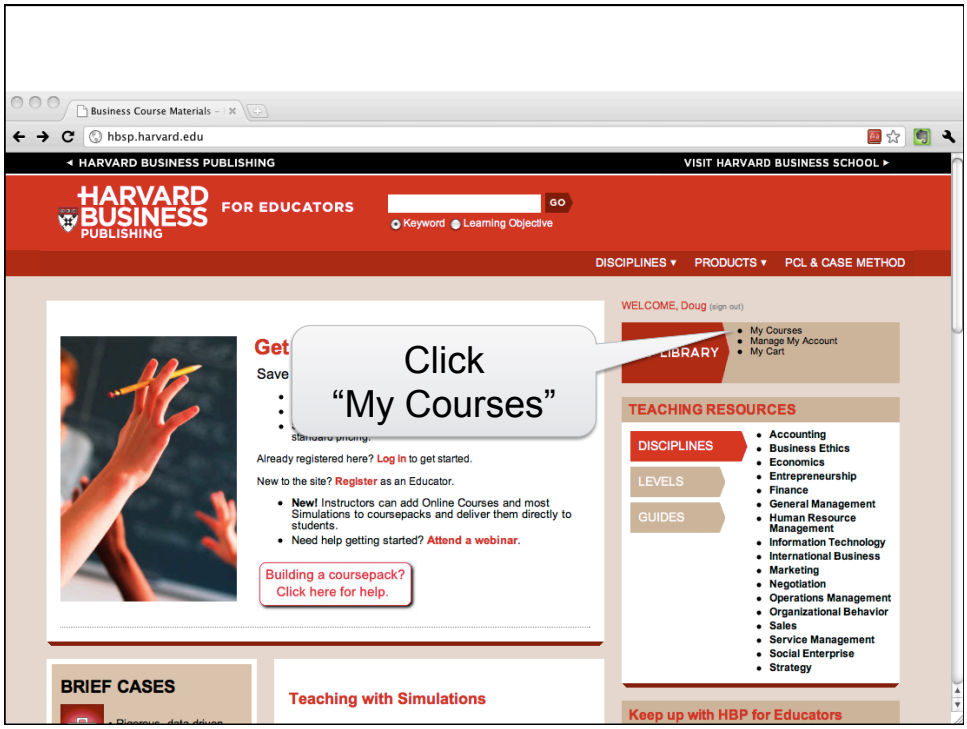
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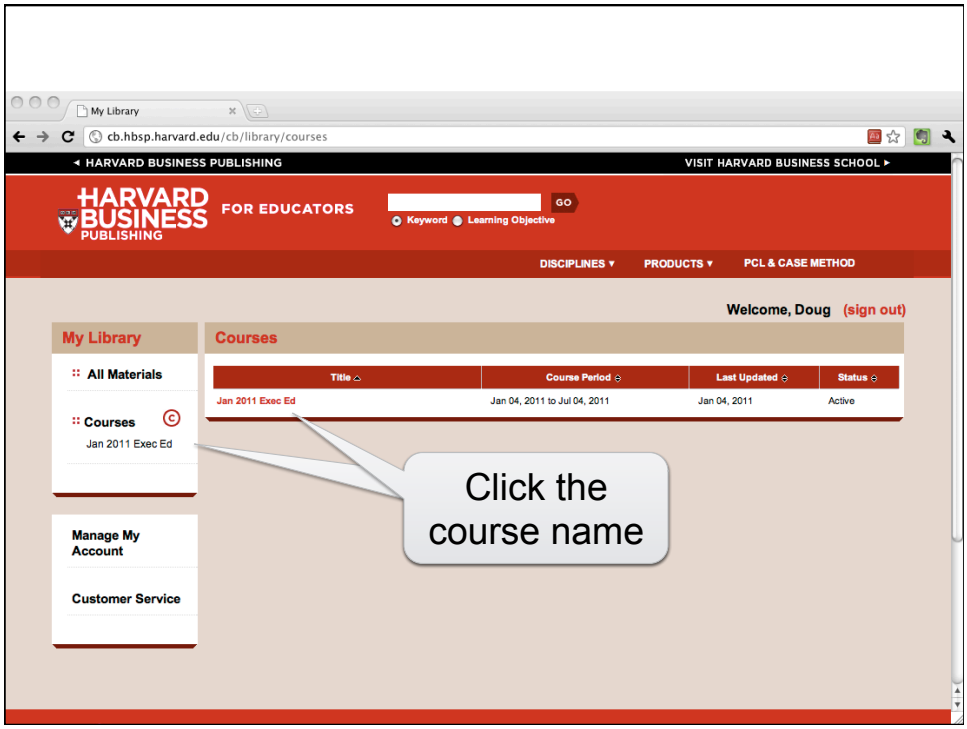
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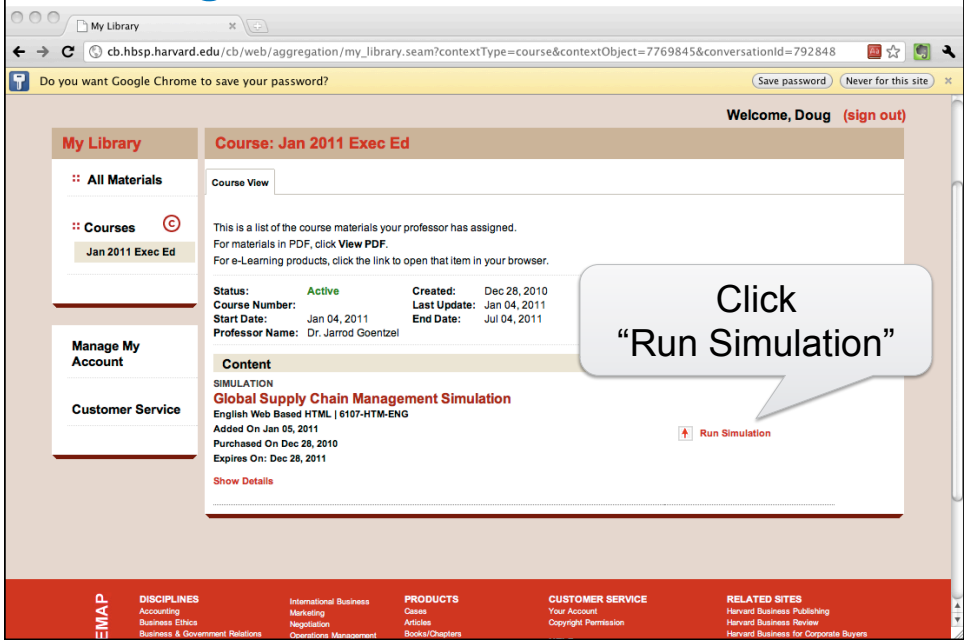
Starting the Simulation



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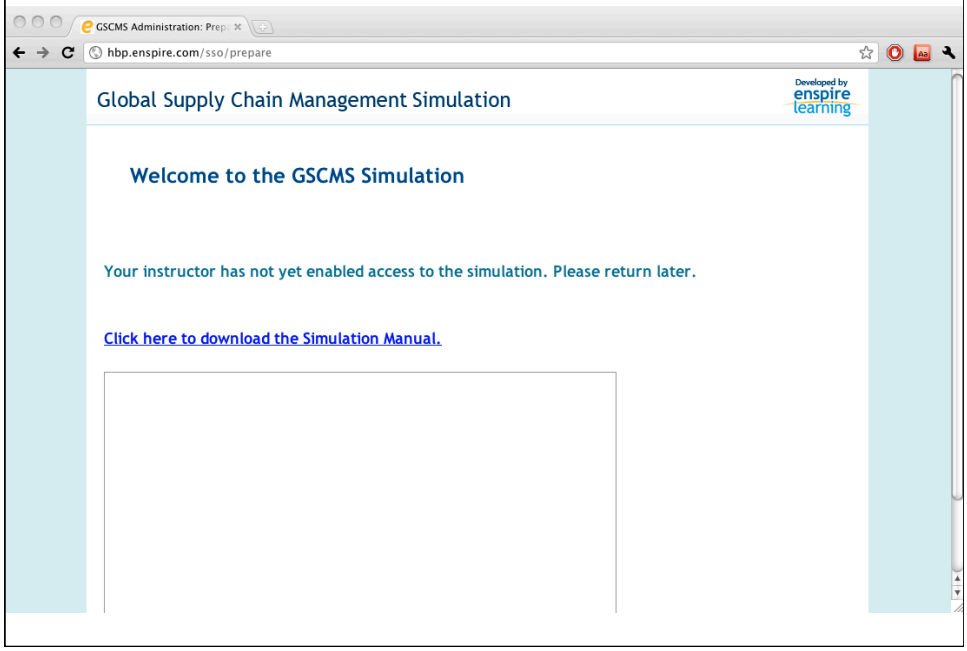
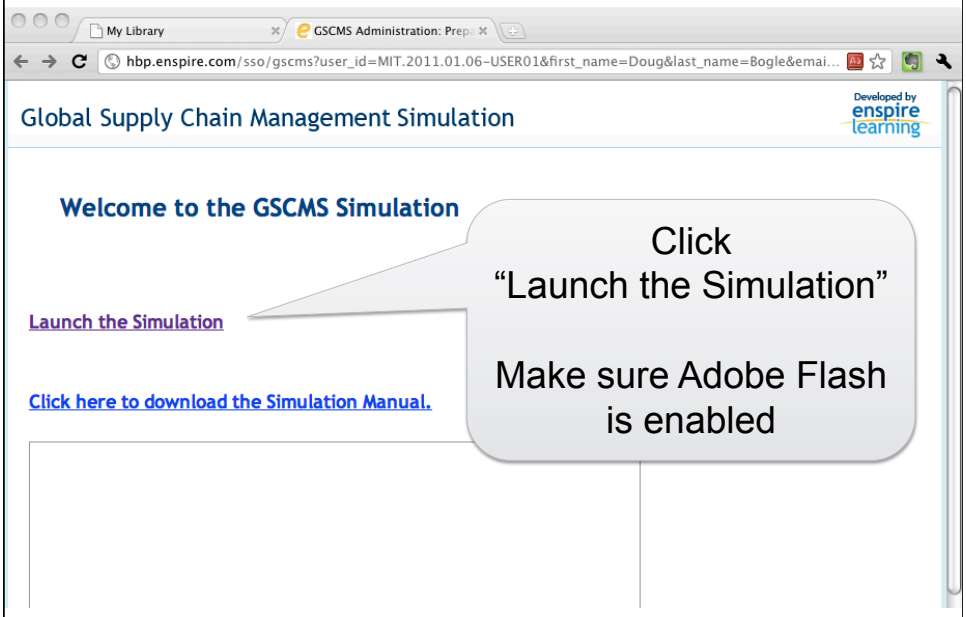
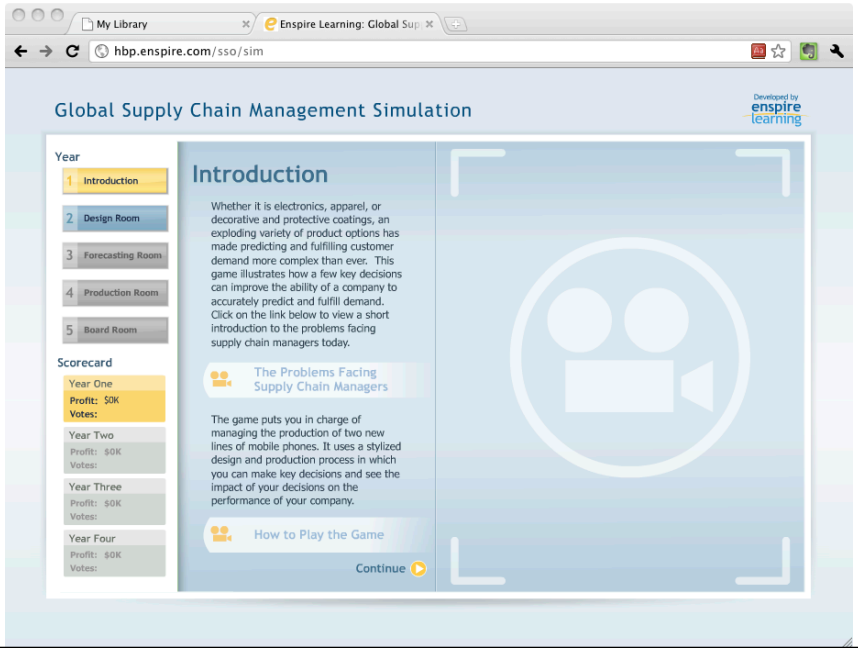
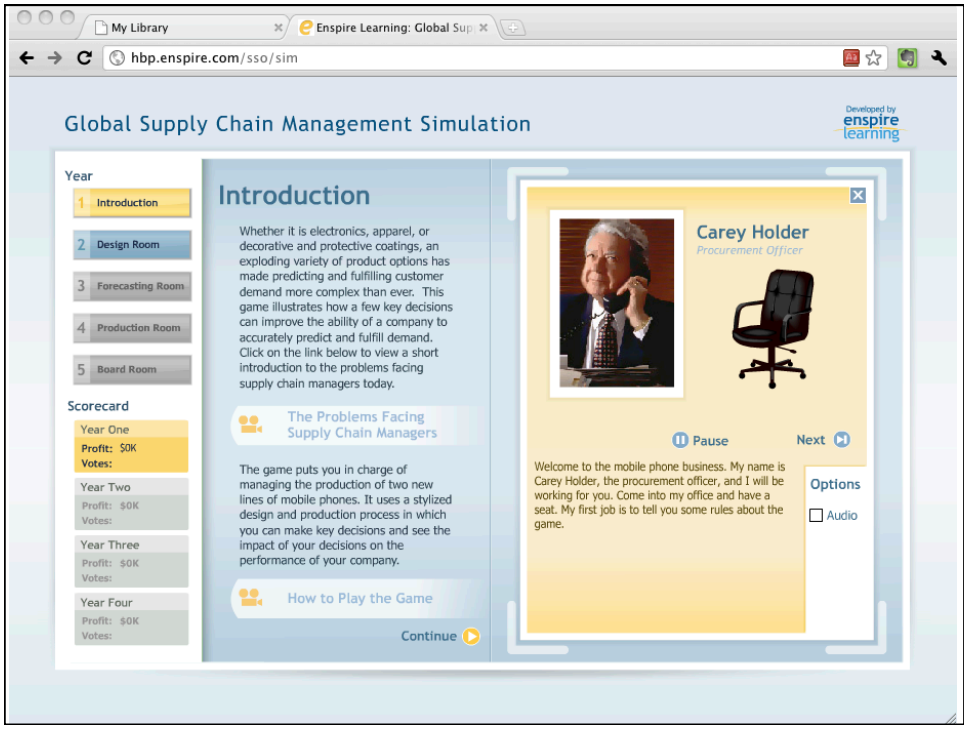


Now You Can Play



Opening Screen

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Votes:
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Year Three
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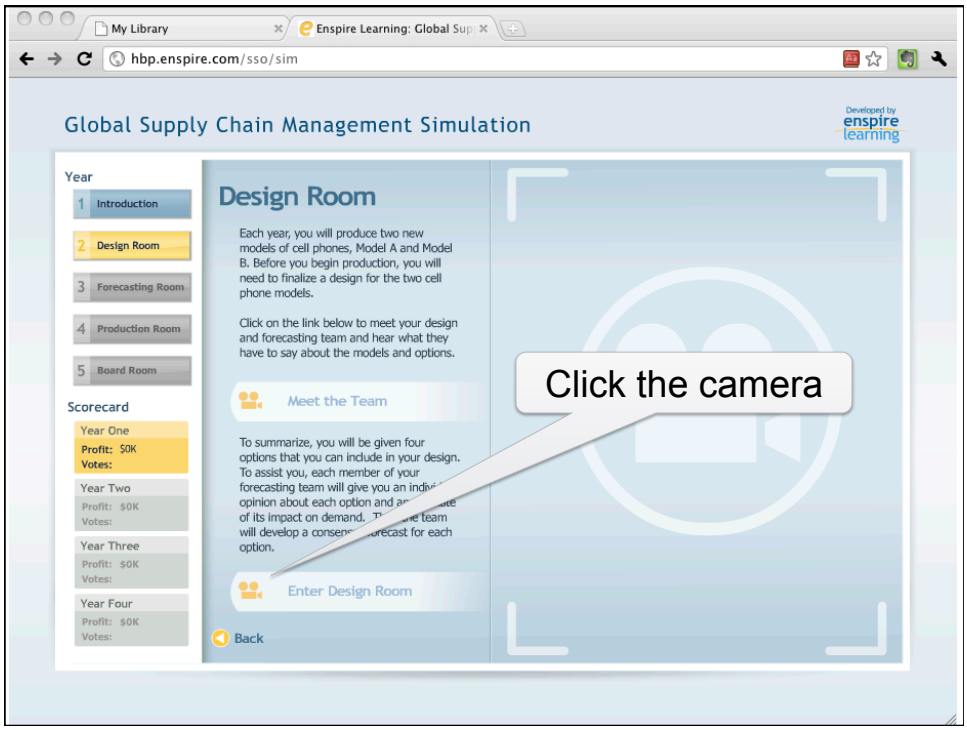
Votes:
Year Four
Profit: $0K
Votes:
Introduction
Whether it is electronics, apparel, or decorative and protective coatings, an exploding variety of product options has made predicting and fulfilling customer demand more complex than ever. This game illustrates how a few key decisions can improve the ability of a company to accurately predict and fulfill demand. Click on the link below to view a short introduction to the problems facing supply chain managers today.
The Problems Facing Supply Chain Managers
The game puts you in charge of managing the production of two new lines of mobile phones. It uses a stylized design and production process in which you can make key decisions and see the impact of your decisions on the performance of your company.
How to Play the Game
Continue
Carey Holder
Procurement Officer
Pause
Next
Welcome to the mobile phone business. My name is Carey Holder, the procurement officer, and I will be working for you. Come into my office and have a seat. My first job is to tell you some rules about the game.
Options
Audio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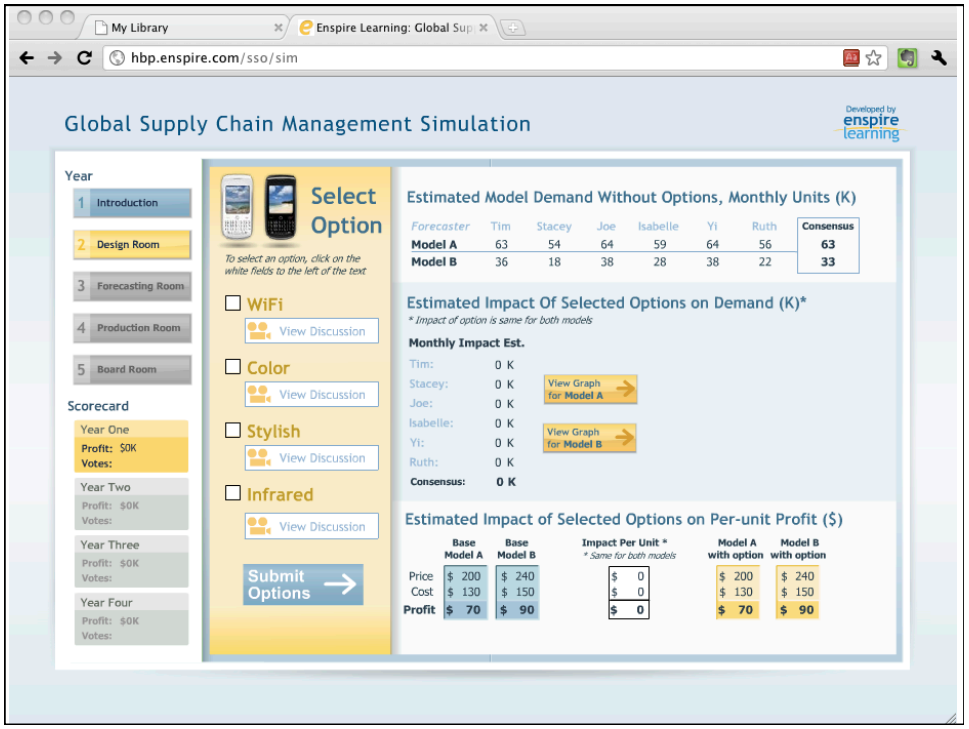
Profit: $0K
Votes:
Year Four
Profit: $0K
Votes:
Design Room
Each year, you will produce two new models of cell phones, Model A and Model B. Before you begin production, you will need to finalize a design for the two cell phone models.
Click on the link below to meet your design and forecasting team and hear what they have to say about the models and options.
Meet the Team
To summarize, you will be given four options that you can include in your design. To assist you, each member of your forecasting team will give you an
of its impact on demand.
will develop a
option.
Enter Design Room
Back
Click the camera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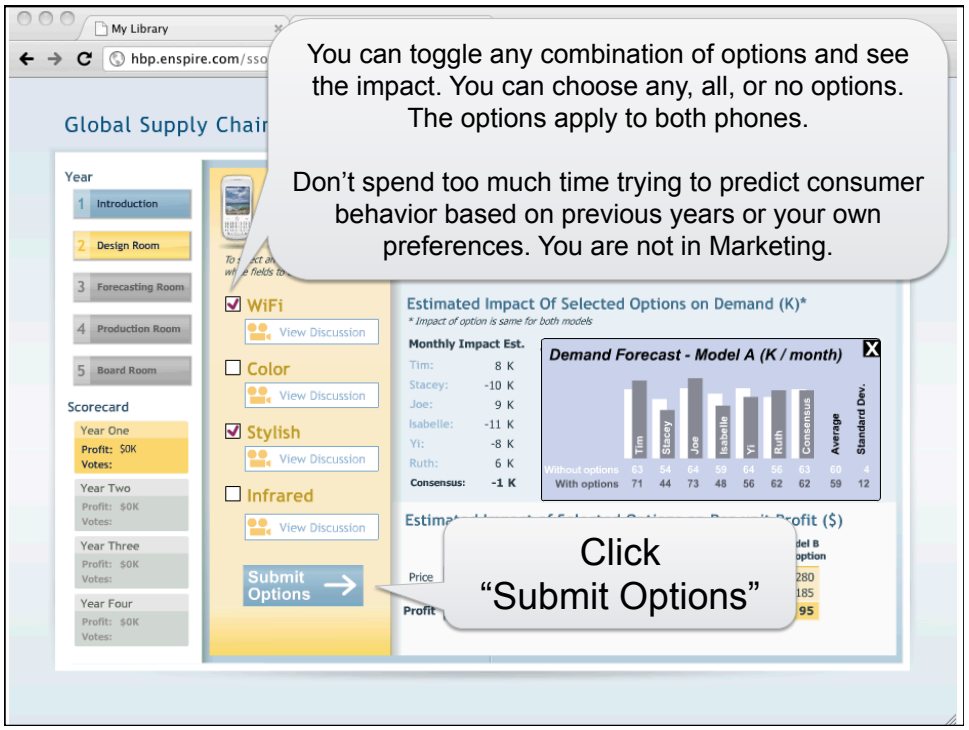
Votes:
Year Three
Profit: $0K
Votes:
Year Four
Profit: $0K
Votes:
Select Option
To select an option, click on the white fields to the left of the text
WiFi
View Discussion
Color
View Discussion
Stylish
View Discussion
Infrared
View Discussion
Submit Options
Estimated Model Demand Without Options, Monthly Units (K)
Forecaster Tim Stacey Joe Isabelle Yi Ruth Consensus
Model A 63 54 64 59 64 56 63
Model B 36 18 38 28 38 22 33
Estimated Impact Of Selected Options on Demand (K)*
* Impact of option is same for both models
Monthly Impact Est.
Tim: 0 K
Stacey: 0 K
Joe: 0 K
Isabelle: 0 K
Yi: 0 K
Ruth: 0 K
Consensus: 0 K
View Graph for Model A
View Graph for Model B
Estimated Impact of Selected Options on Per-unit Profit ($)
Base Model A
Base Model B
Impact Per Unit *
* Same for both models
Model A with option
Model B with option
Price $ 200 $ 240 $ 0 $ 200 $ 240
Cost $ 130 $ 150 $ 0 $ 130 $ 150
Profit $ 70 $ 90 $ 0 $ 70 $ 90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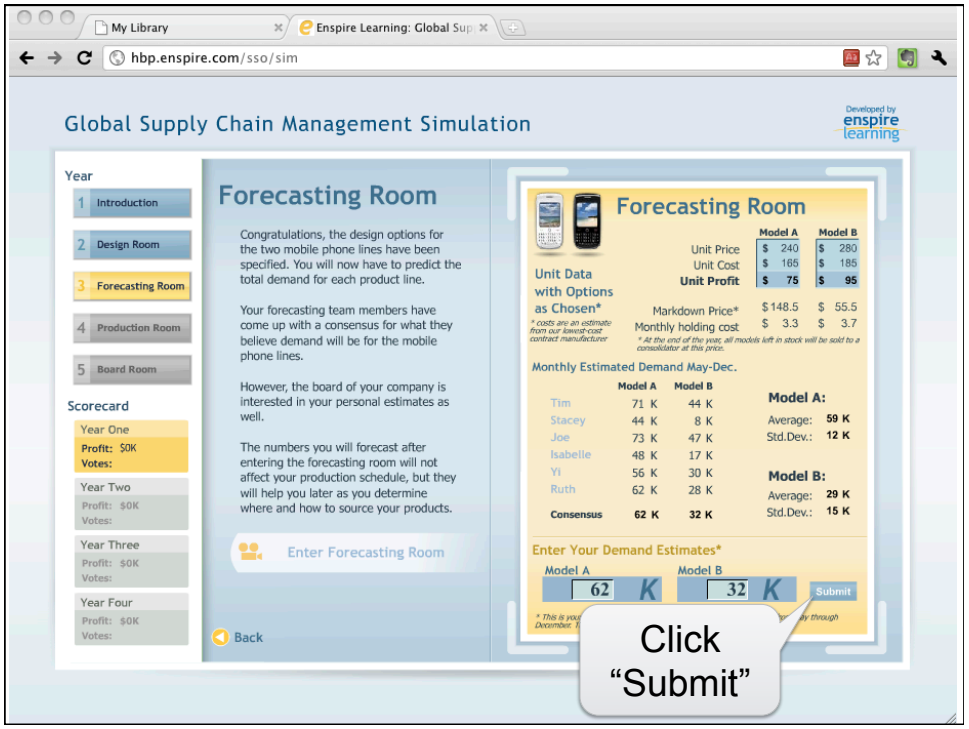
Year Four
Profit: $0K
Votes:
WiFi
View Discussion
Color
View Discussion
Stylish
View Discussion
Infrared
View Discussion
Submit Options
You can toggle any combination of options and see the impact. You can choose any, all, or no options. The options apply to both phones.
Don't spend too much time trying to predict consumer behavior based on previous years or your own preferences. You are not in Marketing.
Estimated Impact Of Selected Options on Demand (K)*
* Impact of option is same for both models
Monthly Impact Est.
Tim: 8 K
Stacey: -10 K
Joe: 9 K
Isabelle: -11 K
Yi: -8 K
Ruth: 6 K
Consensus: -1 K
Demand Forecast - Model A (K / month)
Tim Stacey Joe Isabelle Yi Ruth Consensus Average Standard Dev.
Without options 63 54 64 59 64 56 63 60 4
With options 71 44 73 48 56 62 62 59 12
Click "Submit Options"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Votes:
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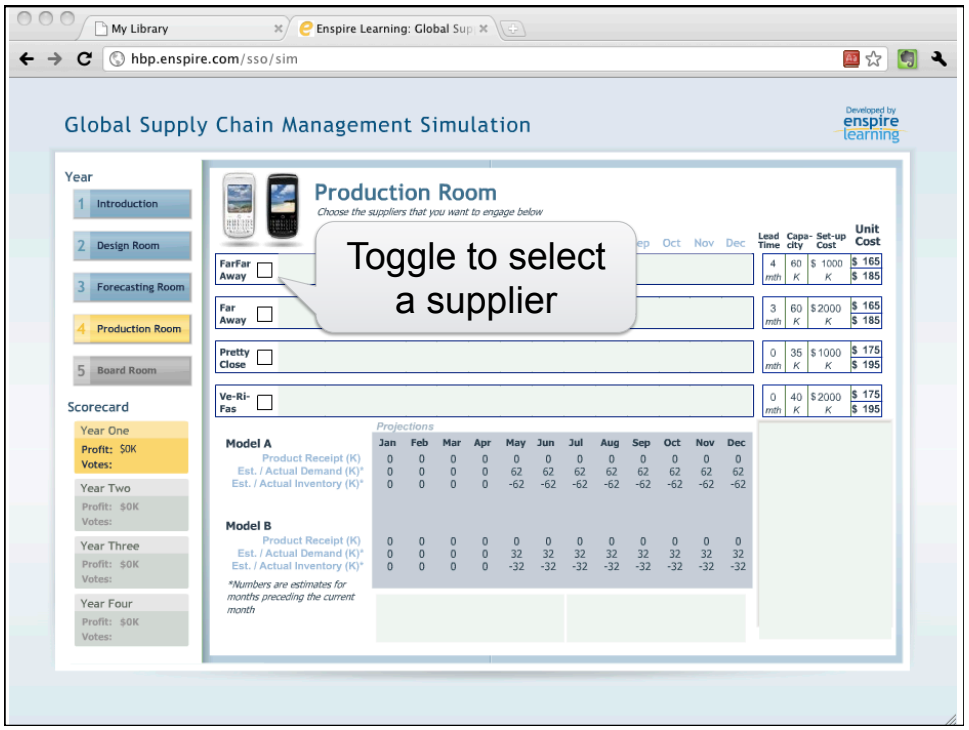
Profit: $0K
Votes:
Year Four
Profit: $0K
Votes:
Forecasting Room
Congratulations, the design options for the two mobile phone lines have been specified. You will now have to predict the total demand for each product line.
Your forecasting team members have come up with a consensus for what they believe demand will be for the mobile phone lines.
However, the board of your company is interested in your personal estimates as well.
The numbers you will forecast after entering the forecasting room will not affect your production schedule, but they will help you later as you determine where and how to source your products.
Enter Forecasting Room
Back
Forecasting Room
Unit Data with Options as Chosen*
Model A
Model B
Unit Price $ 240 $ 280
Unit Cost $ 165 $ 185
Unit Profit $ 75 $ 95
Markdown Price* $ 148.5 $ 55.5
Monthly holding cost $ 3.3 $ 3.7
Monthly Estimated Demand May-Dec.
Model A Model B
Tim 71 K 44 K
Stacey 44 K 8 K
Joe 73 K 47 K
Isabelle 48 K 17 K
Yi 56 K 30 K
Ruth 62 K 28 K
Consensus 62 K 32 K
Model A: Average: 59 K Std.Dev.: 12 K
Model B: Average: 29 K Std.Dev.: 15 K
Enter Your Demand Estimates*
Model A 62 K
Model B 32 K
Submit
Click "Submit"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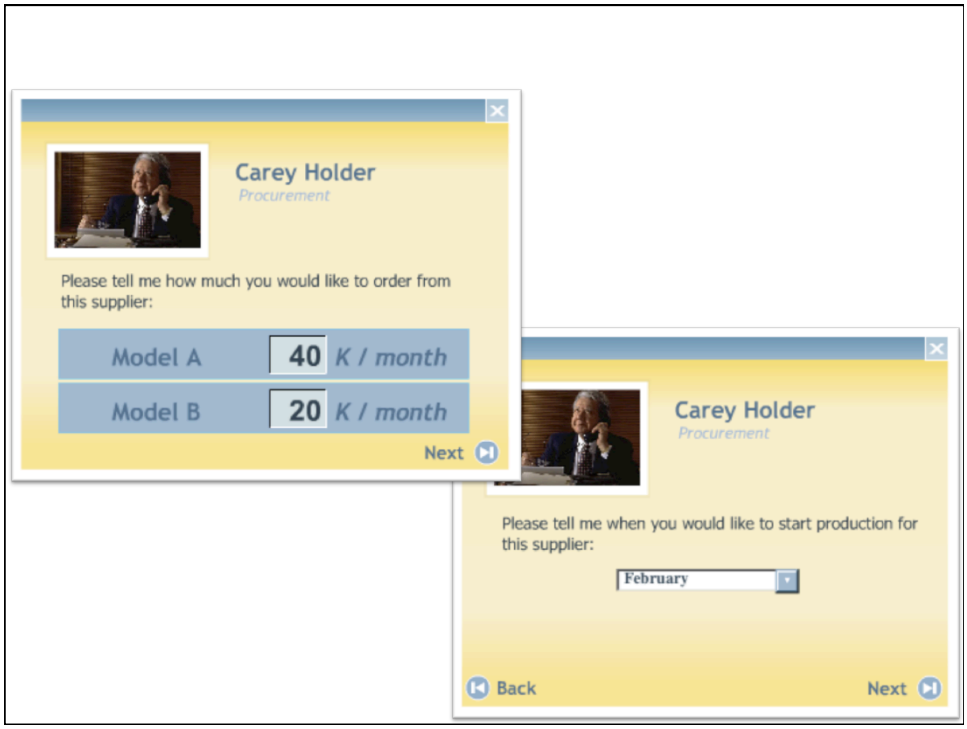
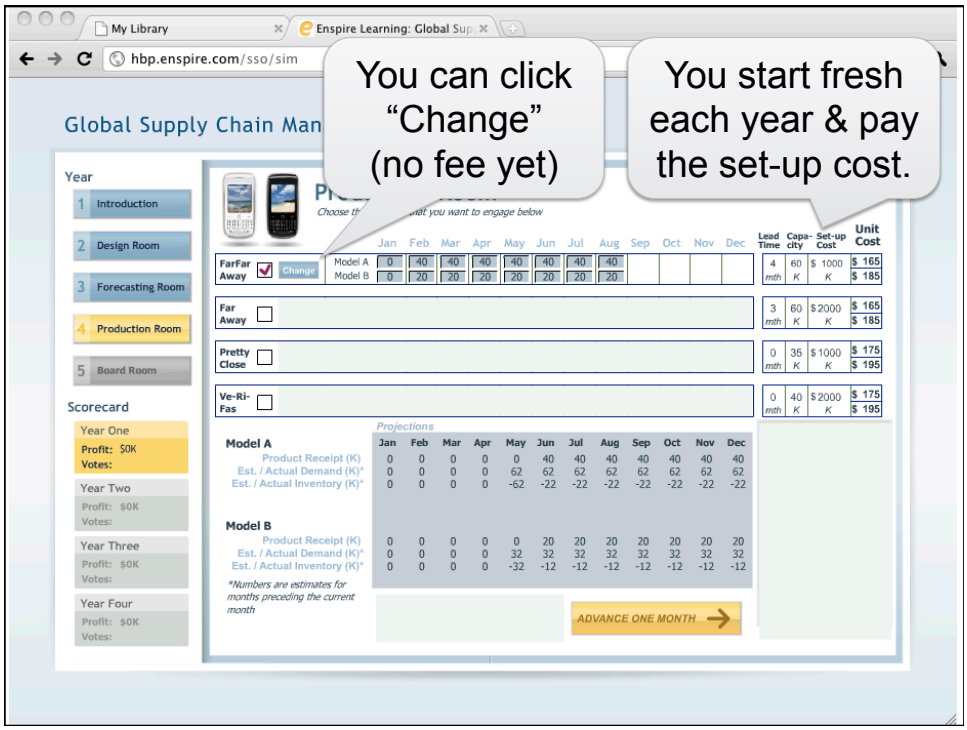
Year Two
Profit: $0K
Votes:
Year Three
Profit: $0K
Votes:
Year Four
Profit: $0K
Votes:
Production Room
Choose the suppliers that you want to engage below
Toggle to select a supplier
Lead Time
Capacity
Set-up Cost
Unit Cost
FarFar Away
Far Away
Pretty Close
Ve-Ri-Fas
Projections
Model A
Model B
Product Receipt (K)
Est. / Actual Demand (K)*
Est. / Actual Inventory (K)*
*Numbers are estimates for months preceding the current month


Carey Holder
Procurement
Please tell me how much you would like to order from this supplier:
Model A 40 K / month
Model B 20 K / month
Next
Carey Holder
Procurement
Please tell me when you would like to start production for this supplier:
February
Back
Next


You can click "Change" (no fee yet)
You start fresh each year & pay the set-up cost.
Global Supply Chain Man
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4 Production Room
5 Board Room
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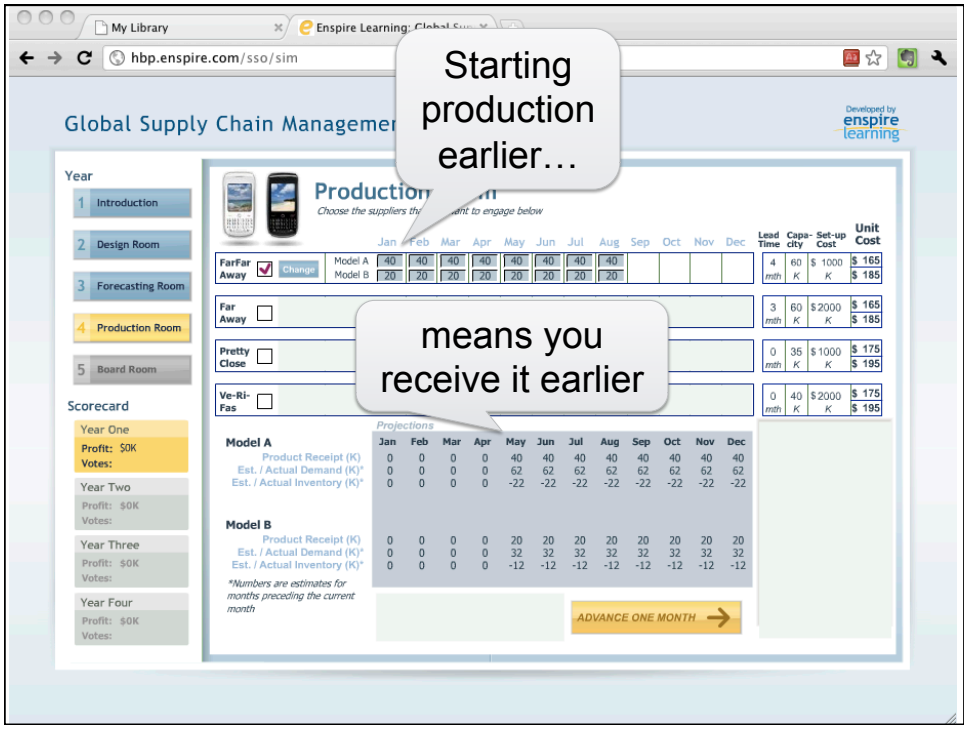
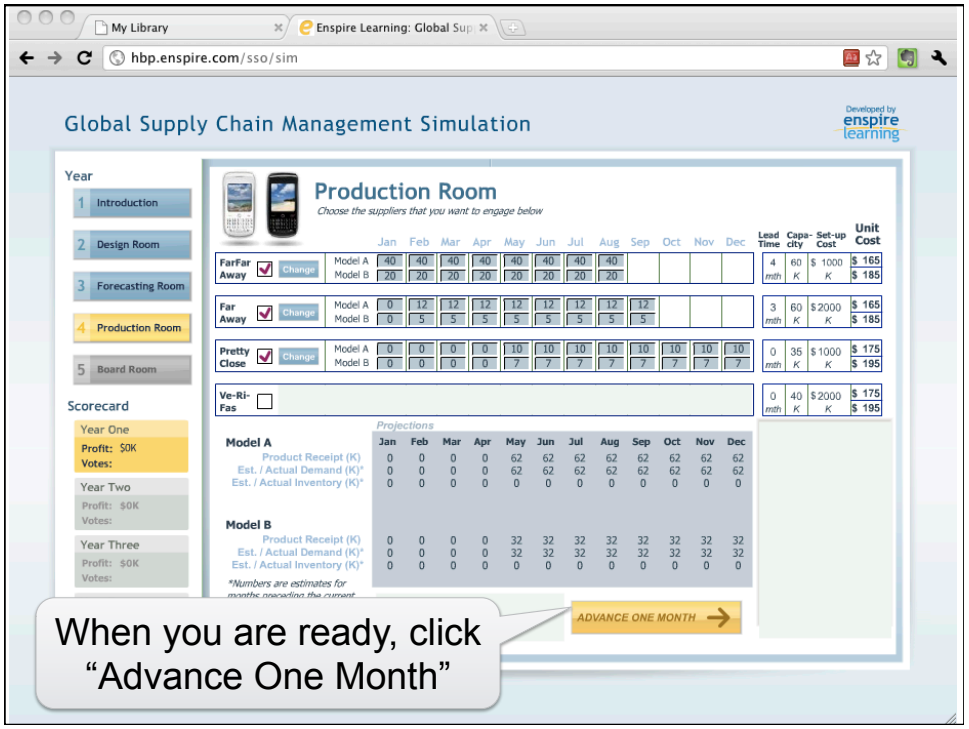
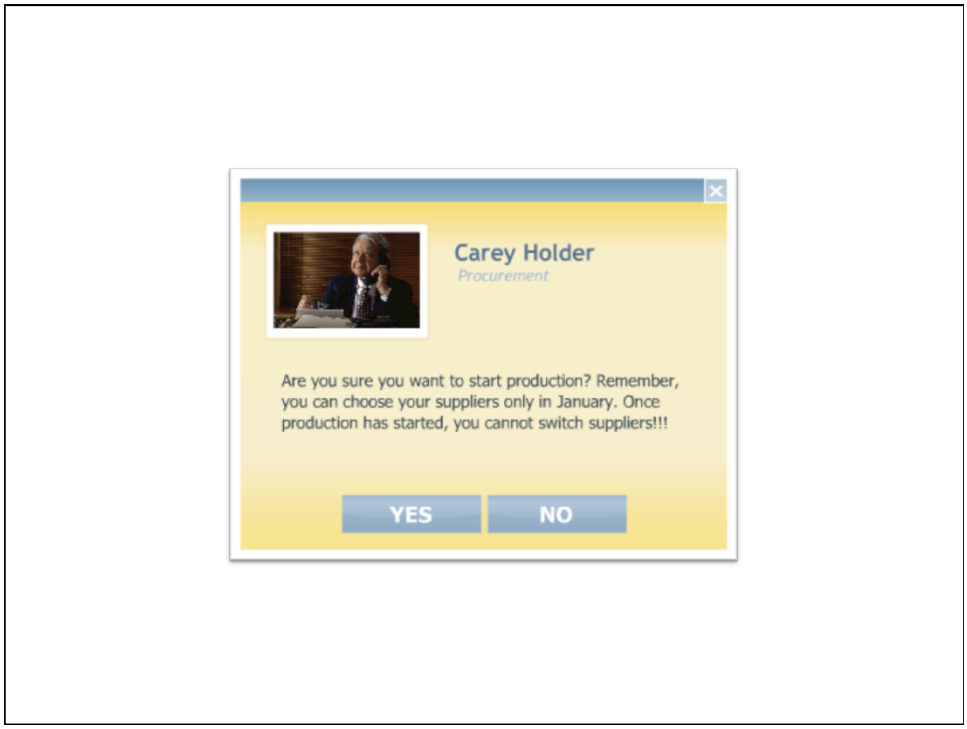
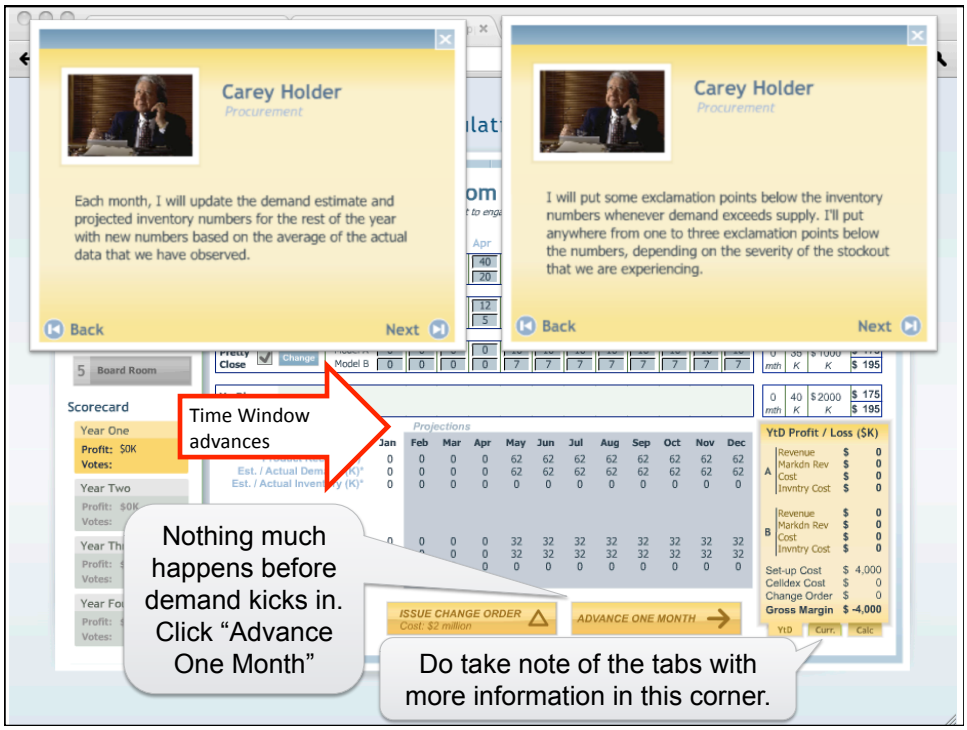
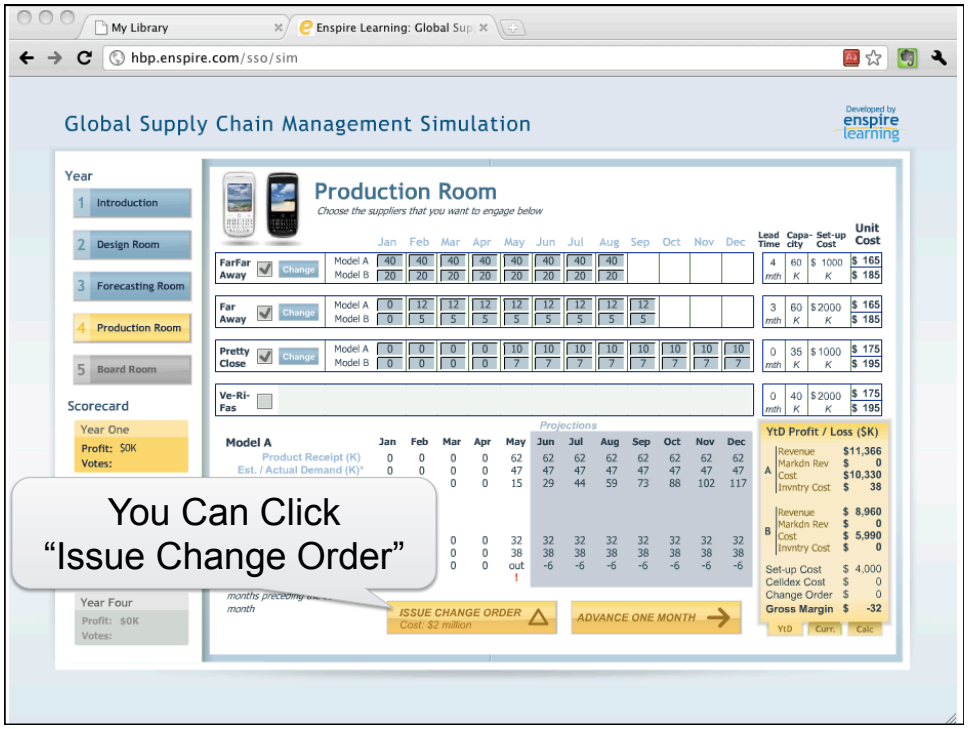
Votes:
Year Two
Year Three
Year Four
FarFar Away
Change
Far Away
Pretty Close
Ve-Ri-Fas
Model A
Model B
Product Receipt (K)
Est. / Actual Demand (K)*
Est. / Actual Inventory (K)*
*Numbers are estimates for months preceding the current month
ADVANCE ONE MONTH


Starting production earlier…
means you receive it earlier
Global Supply Chain Management
Production Room
Choose the suppliers that you want to engage below
ADVANCE ONE MONTH


When you are ready, click "Advance One Month"
Global Supply Chain Management Simulation
Production Room
Choose the suppliers that you want to engage below
ADVANCE ONE MONTH


Carey Holder
Procurement
Are you sure you want to start production? Remember, you can choose your suppliers only in January. Once production has started, you cannot switch suppliers!!!
YES
NO


Carey Holder
Procurement
Each month, I will update the demand estimate and projected inventory numbers for the rest of the year with new numbers based on the average of the actual data that we have observed.
Back
Next
Carey Holder
Procurement
I will put some exclamation points below the inventory numbers whenever demand exceeds supply. I'll put anywhere from one to three exclamation points below the numbers, depending on the severity of the stockout that we are experiencing.
Back
Next
Time Window advances
Nothing much happens before demand kicks in. Click "Advance One Month"
Do take note of the tabs with more information in this corner.
Scorecard
Year One
Year Two
Projections
YtD Profit / Loss ($K)
ISSUE CHANGE ORDER
ADVANCE ONE MONTH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Profit: $0K
Votes:
Production Room
Choose the suppliers that you want to engage below
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Lead Time
Capa-city
Set-up Cost
Unit Cost
FarFar Away
Far Away
Pretty Close
Ve-Ri-Fas
Change
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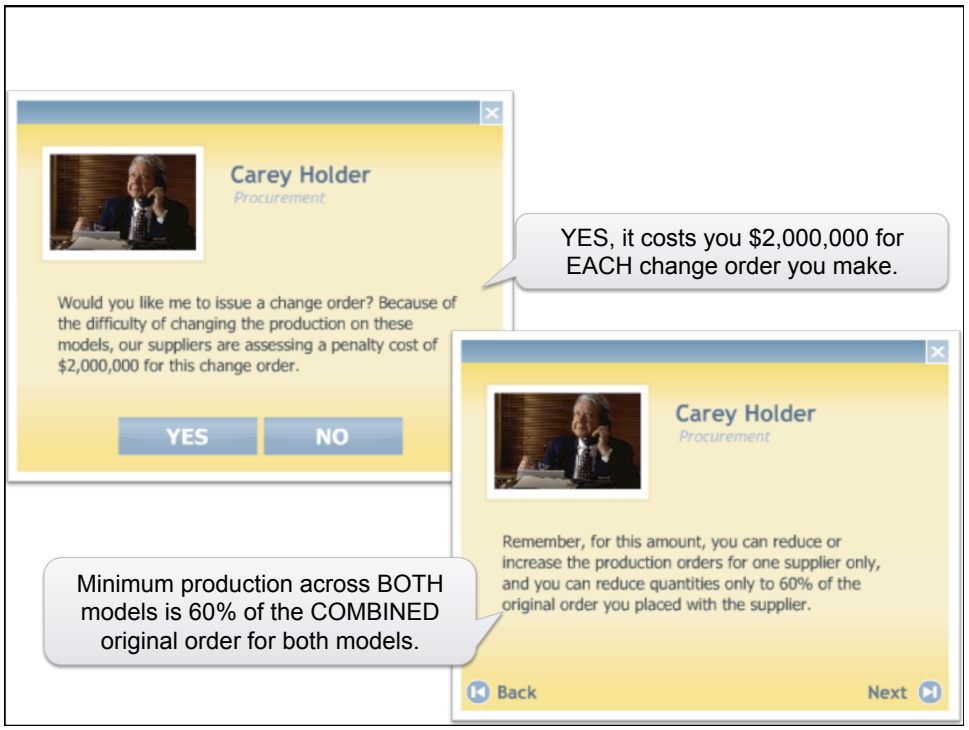
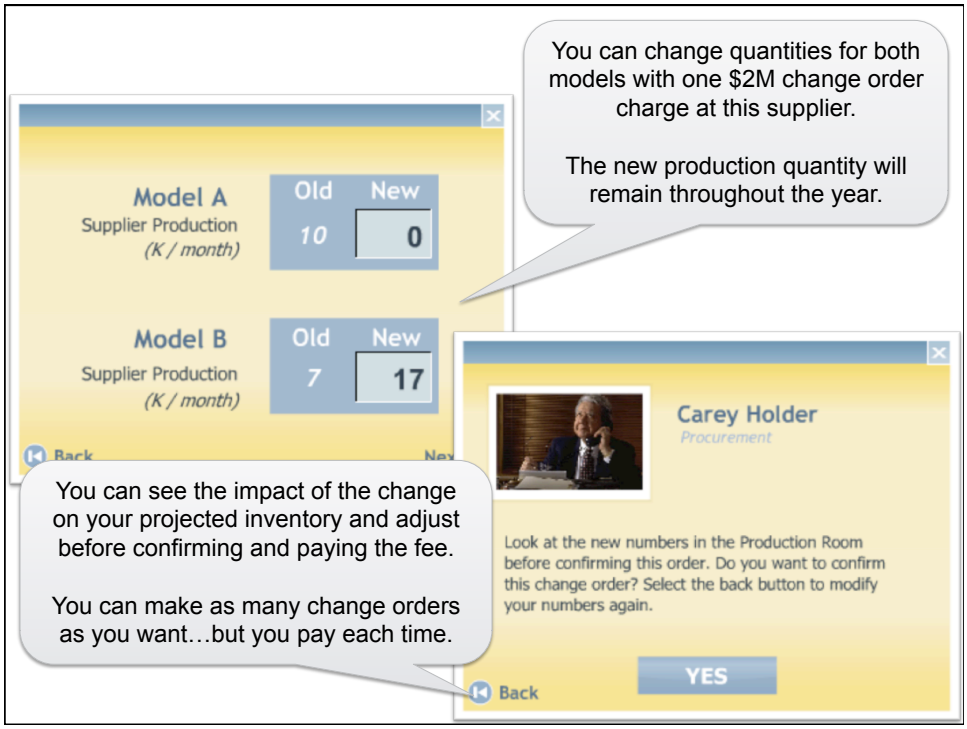
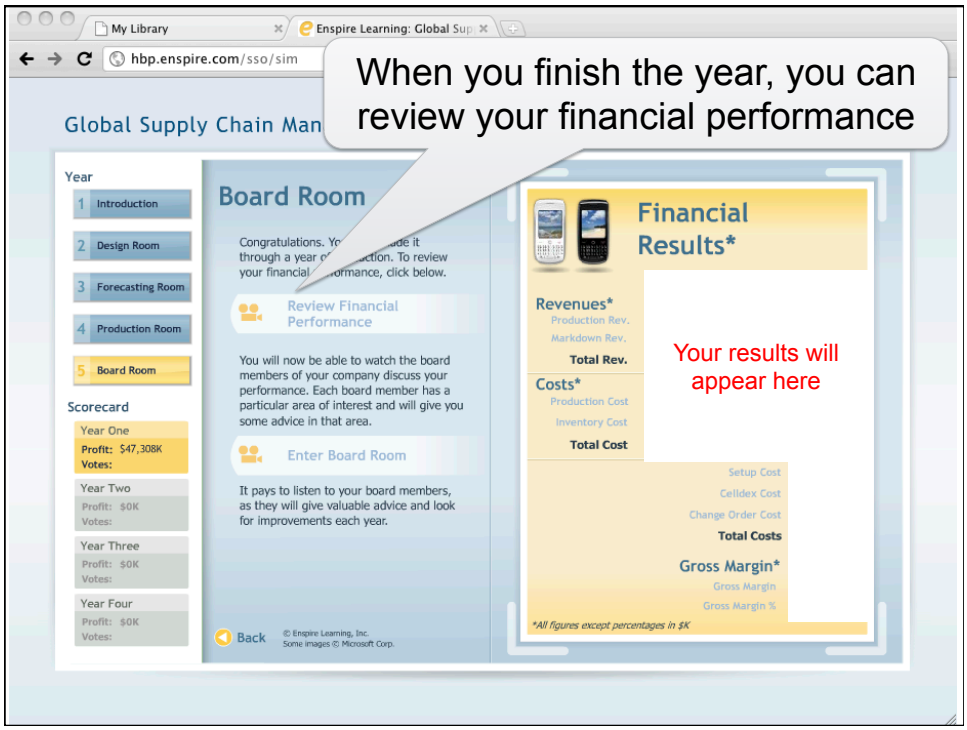
Model A
Product Receipt (K)
Est. / Actual Demand (K)*
YtD Profit / Loss ($K)
Revenue
Markdn Rev
Cost
Invntry Cost
Set-up Cost
Celldex Cost
Change Order
Gross Margin
YtD
Curr.
Calc
You Can Click "Issue Change Order"
ISSUE CHANGE ORDER
Cost: $2 million
ADVANCE ONE MONTH


Carey Holder
Procurement
Would you like me to issue a change order? Because of the difficulty of changing the production on these models, our suppliers are assessing a penalty cost of $2,000,000 for this change order.
YES
NO
YES, it costs you $2,000,000 for EACH change order you make.
Carey Holder
Procurement
Remember, for this amount, you can reduce or increase the production orders for one supplier only, and you can reduce quantities only to 60% of the original order you placed with the supplier.
Back
Next
Minimum production across BOTH models is 60% of the COMBINED original order for both models.


You can change quantities for both models with one $2M change order charge at this supplier.
The new production quantity will remain throughout the year.
Model A
Supplier Production
(K / month)
Old
New
10
0
Model B
Supplier Production
(K / month)
Old
New
7
17
Back
You can see the impact of the change on your projected inventory and adjust before confirming and paying the fee.
You can make as many change orders as you want…but you pay each time.
Carey Holder
Procurement
Look at the new numbers in the Production Room before confirming this order. Do you want to confirm this change order? Select the back button to modify your numbers again.
YES
Back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When you finish the year, you can review your financial performance
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Profit: $47,308K
Votes:
Year Two
Profit: $0K
Votes:
Year Three
Profit: $0K
Votes:
Year Four
Profit: $0K
Votes:
Board Room
Congratulations. Yo ude it through a year o ction. To review your financial rmance, click below.
Review Financial Performance
You will now be able to watch the board members of your company discuss your performance. Each board member has a particular area of interest and will give you some advice in that area.
Enter Board Room
It pays to listen to your board members, as they will give valuable advice and look for improvements each year.
Back
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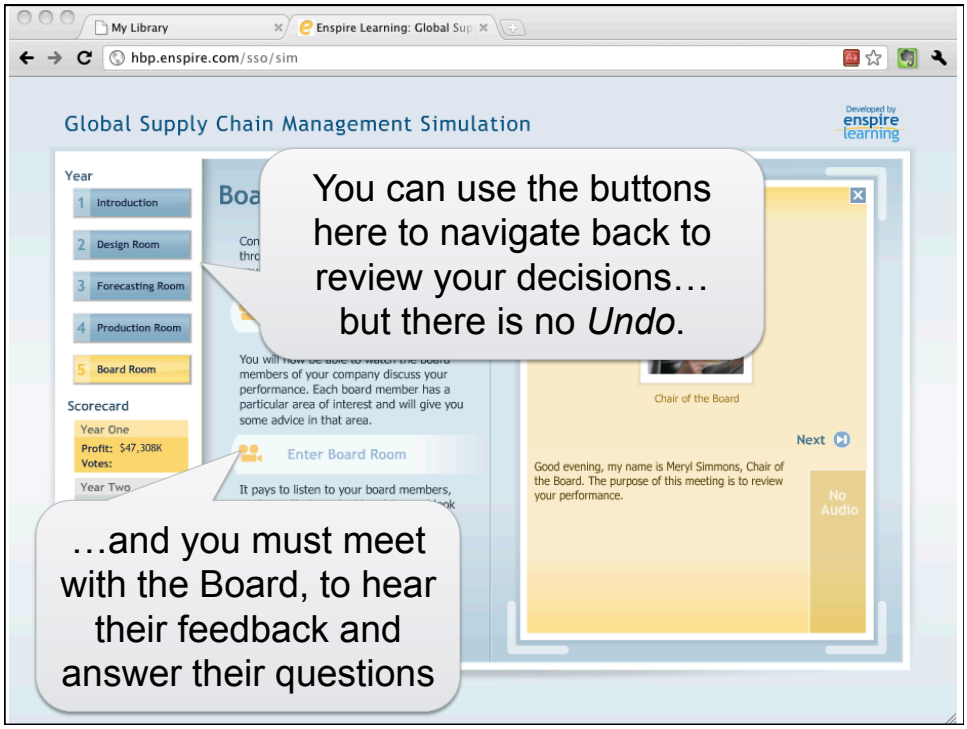
Financial Results*
Revenues*
Production Rev.
Markdown Rev.
Total Rev.
Costs*
Production Cost
Inventory Cost
Total Cost
Your results will appear here
Setup Cost
Celldex Cost
Change Order Cost
Total Costs
Gross Margin*
Gross Margin
Gross Margin %
*All figures except percentages in $K



Let's Play

- Do NOT close or "refresh" the browser, otherwise your data for the current year will be lost. Data are saved after completing each year.
- Each year you begin from scratch with new products and new suppliers.
- You can only sell products after the launch on May 1
- You must sell all inventory at a discount on December 31.
- Add specific but not lengthy **strategy comments** as you play.
- You **must complete all four years** in order to qualify for the special prize.

Time budget to finish in TWO hours:
Year 1 (45 min)
Year 2 (30 min)
Year 3 (25 min)
Year 4 (20 min)

Debrief Questions

Design & Forecasting

- How did you decide which options to choose?
- How did you arrive at your forecasts?

Supplier Choice & Initial Order

- How did you decide which supplier(s) to use?
- Was it worth the extra $1 million for 3 month instead of 4 month lead time for the far supplier?
- Was it worth the extra $1 million for extra capacity (40 vs. 35) for the close supplier?

Dynamic Planning

- How often did you use $2M change orders? Why?
- Did you buy $2M market information? Why or why not?