

THE BEER GAME: Facilitator Instructions

You have four tasks:

1. Set up the game board(s).
2. Monitor the game(s) and fix any problems that occur.
3. Collect, check, and post the game statistics.
4. Clean up after the game.

Setting up the Game Board(s)

1. Tape the game board down to the table using masking tape. Place tape strips at each end of the board and along the sides of the board between the four positions.
2. Place inventory: Place four of the small chips (or pennies) in each of the eight Shipping Delay and Production Delay small squares, and place twelve small chips/pennies in each of the four larger Current Inventory squares.
3. Place ordering slips: Place approximately fifty small slips of paper above each of the four large CURRENT INVENTORY squares.
4. Fill order pipeline: Place an order slip in each of the seven small boxes labeled ORDERS PLACED, INCOMING ORDERS, or PRODUCTION REQUESTS. Each order slip should have the number 4 written on it and be placed face down.
5. Place a copy of the sheet labeled GAME RECORD (BY WEEK) near each of the four CURRENT INVENTORY squares, together with a pencil.
6. Place approximately 500 small chips/pennies and approximately 30 large chips at the RAW MATERIALS location on the board.

NOTE: At this point, all of the squares on the board should have something in them. The two rectangles marked USED ORDER CARDS and ORDER CARDS do not have anything in them. DO NOT place the order card deck on the board at this time.

Starting the Game

There can be a minimum of four players and a maximum of eight players at each game board. If there are fewer than eight players, be sure that the FACTORY position has two players (assuming, of course, that there are more than four players total) and fill in with second players at each position from that position toward the RETAILER position. After the Moderator explains the game, place the order deck in the ORDER CARDS rectangle. As the Moderator works through the “sample” moves, confirm that these are being done correctly. In particular, confirm that the RETAILER is placing the used order cards face down in the USED ORDER CARD rectangle, and that orders and production requests are being placed face down.

Monitoring the Game(s) and Fixing Problems

During the game, confirm that the RETAILER continues to discard order cards face down and that orders are also placed face down. Also confirm that the different positions in a game are not talking to each other. Your primary task is to fix problems which occur in

a game. Your objective in doing this is to get a game that has become confused back into a position where play can continue. This must be done rapidly so that the progress of the other games is not delayed.

You can most easily monitor the progress of a game at the end of each week. At that point, there should be an order slip in all seven of the ORDERS PLACED, INCOMING ORDERS, and PRODUCTION REQUESTS squares. If one or more of these are missing, then pointing this out to the relevant players will usually lead them to quickly place the missing order(s). If this does not happen, then duplicate a physically adjoining order and place it in the empty square.

At the end of each week, each GAME RECORD (BY WEEK) should have the correct number of weeks filled in. A player may have either forgotten to fill in a week or may have filled it in twice. If the player cannot fix this, then either erase an extra week's entries or duplicate the entries above for a missing week's entries.

Note that there will not necessarily be playing pieces in all the CURRENT INVENTORY, SHIPPING DELAY, or PRODUCTION DELAY squares at the end of a particular week. In some games there will be no playing pieces in any of the CURRENT INVENTORY squares at the end of some weeks.

Collecting, Checking, and Posting Statistics

As the Moderator discusses the calculation of Total Cost for each position, answer any questions. Hand out a marking pen for each position in a game to use in plotting graphs. As the Moderator discusses each graph, hand out and help with plotting on the INVENTORY OR BACKLOG (BY WEEK) graph form and the ESTIMATED RETAIL CUSTOMER ORDERS (BY WEEK) graph form. [Note that each of the four positions in a game fills in the INVENTORY OR BACKLOG (BY WEEK) form, but the Retailer does not fill in the ESTIMATED RETAIL CUSTOMER ORDERS (BY WEEK) form.] Finally, hand out the TOTAL GAME COST form, and make sure that it is filled in. (There is only one of these forms per game.)

Collect, check, and post the forms. **Confirm that the team name and position is listed on each form.** Check that the results are reasonable. In particular, the total game cost is usually not below \$1,000 or above \$5,000. Totals outside of these limits indicate a possible arithmetic error. Post the forms on the wall in order by position with the Factory position at the top.

Cleaning Up

After the game is over, collect the various reusable supplies. In particular:

1. Place the playing chips back in a plastic bag so that they can be reused.
2. Collect all of the cards in the retail customer order deck, and place these in the correct order, with a rubber band around the deck.
3. Collect the pencils and marking pens.
4. Remove the tape from the game board, and roll up the board.

THE BEER GAME: Moderator Hints

Your job is to keep the game(s) moving along, while assuring that no game is left in a position where it cannot continue because of playing errors. Thus, you must clearly explain each step of each week's move, and you must continue to re-explain this each week.

Game Play

The players are in a state of partial confusion during the game play. It will help them to complete the correct steps if you physically describe what needs to be done:

1. For step 1, say "Take both hands, reach to the right and advance inventory and shipping delays. Factories advance production delays."
2. For step 2, say "Reach up and to the left and look at the incoming orders. Fill them. Remember that you must fill your backlog, also, if you can. Those thirsty customers are waiting! When you are done with the order slip, slide it under the game board." (The last instruction is to prevent confusing old orders with new.)
3. For step 3, say, "Record your inventory or backlog. Remember that backlog is cumulative. Those customers will wait forever for your beer! This is week xx. Check your form. Do you have week xx filled in?"
4. For step 4, say "Reach up and to the right. Advance that order slip! Factories, check your production requests and make that beer! Put it in the Production Delay. Those thirsty customers are waiting!" (The factory has a different step here than the other three positions. You must continually remind them of this.)
5. For step 5 say, "Place and record your orders. Factories place and record your production requests. Here's your chance to make a decision. Remember that both inventory and backlog cost you, but backlog costs twice as much as inventory. You don't want to keep those thirsty customers waiting! Don't forget to record your orders."

Write down the number of each week as you start that week, and cross out the number as you complete the steps for that week. This should be done in a place where you can see the numbers from anywhere in the playing room. While it is unlikely that the players will look at these numbers, you will almost certainly become confused about which week you are on if you do not write it down. (The confusion will probably occur while you are trying to fix a game that has gotten messed up. While you are working on this, you will likely forget what week you are on, or maybe even what step you are on in a particular week.)

Do not explain how to do backlog calculations until some position in some game runs out of inventory. Then work through an example. Do two weeks of calculations, so the players can see that backlog is cumulative. Keep re-stressing this point during successive weeks.

Debriefing

At the beginning of the debriefing, it is helpful if the graphs for the various games are not visible. Then, you can ask people what their feelings are about the game without these feelings being colored by the results. Then unveil the results and discuss them. Remember that this stuff is new to the game players. Take it slow, and give them time to discuss it and reach their own conclusions about what is going on.

THE BEER GAME: Supplies

Each game requires:

1. One table, at least 96 inches by 30 inches
2. One chair for each player—four to eight total
3. One game board
4. Twelve feet of masking tape, at least one inch wide
5. Approximately 600 bingo chips or pennies
6. Approximately 30 poker chips, any color
7. Approximately 200 small pieces of paper to use for ordering. It helps if these are colored so that writing is less likely to show through. If you cannot buy appropriate paper pre cut, then you can make it by cutting up standard copying paper. Cut this in half vertically, and into fourths horizontally. This will result in eight pieces of paper, each $4\frac{1}{4}$ inches by $2\frac{3}{4}$ inches. Thus, you will need to cut 25 sheets of paper for each game.
8. One pencil for each position, and hence four total pencils.
9. Fifty 3 inch by 5 inch unlined file cards, marked with retail customer orders on one side.
10. Four thin-line marking pens to use for plotting graphs. A bright color like red will show up best.
11. Four GAME RECORD (BY WEEK) forms
12. Four INVENTORY OR BACKLOG (BY WEEK) graph forms
13. Three ESTIMATED RETAIL CUSTOMER ORDERS (BY WEEK) graph forms
14. One TOTAL GAME COST form