

Stepping Into the Past

RUNNING YOUR FACTORY THE CAPITALIST WAY: MANCHESTER, 1800

Professional Version (Draft)

Introduction

In this activity, you must help simulate the conditions of the early industrial revolution in Manchester, England, in your classroom. You will guide the students as they play the roles of either factory owners or workers. You will actually simulate “factories” in your classroom, and the experience of working in factories, as well as the financial opportunities and risks inherent in trying to open and successfully run a factory. Most importantly, you will introduce the crucial factor of technological innovation to demonstrate its centrality in the development of industry. Later in this book, there is a related activity called “Running Your Factory the Socialist Way: Bratislava, 1980,” for which this activity prepares students.

Preparation and Materials

For this activity you will need to bring the following materials:

1. Money. You can supply your own, such as from a monopoly game, or you can print off the image supplied on the website which is a facsimile of a one pound note from the early 19th century. It will be simplest if you have one denomination, though having multiple denominations can also work. You should have the equivalent of at least 200 pounds. (You may also choose dollars or other currencies, but for the sake of historical context, we will refer to British pounds in this activity.)
2. Paper. Plain white printer or copier paper works the easiest. You will need at least 500 sheets to be on the safe side.
3. Pencils (sharpened, if not mechanical). You can also use some other drawing implement such as pens as long as they are able to produce an image with sharp lines.
4. At least two stamps with an image on them, and corresponding inkpads. This can be found at almost any novelty or toy store, such as Toys R Us, and many other places where inexpensive toys are sold (such as Walmart, CVS, and similar places). You can also look in craft stores, like Michaels. Frequently, such stamps will have images such as a dinosaur, a happy face, or an airplane on them. It

only matters that the image also be something that can be reasonably drawn by hand quickly, so, it should not be too elaborate. Text can work, but is not ideal. The idea is that the stamps will be used to replace hand-drawn images at a certain stage of the game.

Finally, students should read through the historical introduction to the activity, and you may wish to provide additional study materials concerning the industrial revolution in Britain. There are some suggestions at the end of this activity.

Goals and Outcomes

After this activity, your students should gain a basic understanding of the economic and technological forces at work driving the industrial revolution, as well as some of the social and political consequences of 19th century industrialization.

In particular, your students should be able to do the following:

1. Explain how the introduction of machinery improved a factory's competitiveness while also making employment harder to find for the working class.
2. Describe the financial pressures that industrialists were under to compete with other enterprises.
3. Recognize factory work as repetitive, monotonous, and unpleasant.
4. Recognize the power that factory owners had over workers, in particular those who could not effectively carry out their work and those who tried to organize a labor union.
5. Describe the hardships that would befall a worker who lost or was unable to find employment in this time period.
6. Link the existence of a surplus labor force to the power the factory owners held over their workers.
7. Understand the importance of the Bank of England in providing credit for capital-intensive enterprises, which no other country had.
8. Be able to define capitalism, and describe the benefits and drawbacks of the capitalist economic system. This is especially important for the related activity "running your factory the socialist way: Bratislava, 1980."

Further questions for discussion and suggestions for assessment follow below in the “after the activity” section.

Structure of the Activity

This activity does require more organization and preparation than some activities. Furthermore, though it is structured, unlike some other activities in this book, there is an element of unpredictability included as well. This is intentional; the activity mirrors the unpredictability and chaos of the early industrial free market economy, in which sudden fortunes and sudden financial collapses—of individual companies or entire markets and industries—were commonplace, and the economy oscillated wildly between boom and bust.

Step 1: Introduce the activity. Read the description of the activity or describe it in your own way. Put the paper and the pencils out but do not distribute them yet. Important: the stamps and inkpads must remain concealed from all students.

Step 2: Pick the industrialists. Depending on how many students you have, you may wish to have between two and four factories, though three is ideal. You can have between one and three factory owners for each factory, though two is ideal. These students will get together in separate areas of the classroom, and if there are free standing desks, they should arrange four of them in a circle. This will be their factory. You should tell them to pick a name for their company. Make sure you explain to them what their company produces, how it gets its funding and its supplies, and the fact that they have to repay business loans as well as pay wages at the end of each turn.

Step 3: (optional) you can pick one or two students to be the “Market.” These students will have to sort through the factories “products” and decide which ones they will “purchase.” If you do not feel comfortable doing this or if you do not have enough students, then you can play the role of the “Market.” The Market will get 100 pounds to spend over the course of the game. However, the Market can only spend 30 pounds per turn. Each drawing costs one pound.

Step 4: Assign four students to be workers at each factory. Important: you must have at least three students left over to be the “surplus” workers who are unemployed. If you do not have enough students, you can have three at each factory, or have less factories. But each factory must have at least three workers. Alternately, if you have too many students, you can add a factory, have more workers at each factory, or have more surplus workers. Make sure the workers understand their task: they are producing drawings, one per each sheet of paper, that need to be as neat and consistent as possible. They will draw the same image that is on the stamps you have brought to class. Each worker will be paid a wage of two pounds at the end of each turn.

Step 5: Group the rest of the students, who are the surplus labor force, someplace near the factories. Explain to them the direness of their situation: they will need two pounds to pay for lodging and food, but they have no job, and no money. Either they will have to get a job, get some money, or they will sicken and die.

Step 5: You are the Bank of England, so you will provide each factory with its business loan. This amount can vary based on how many students you have, but ideally it should be 25 pounds. This is a three-round loan, and must be paid back in payments of 10 pounds per round (principle = 25; interest = 5).

Step 6: Each factory has to purchase supplies and raw materials: paper and pencils/pens. Ideally, each factory should purchase 50 sheets and four pencils/pens. You may use your discretion as far as how much to charge for these materials, but it is suggested that you charge one pound per pencil/pen, and five pounds per 50 sheets of paper.

Step 7: Begin the first round. When you say “go,” the workers must begin producing as well and as fast as they can. Or rather, it is up to the factory owners to ensure that they do this: their profits depend on it. After five minutes, you announce that the round is over. The factory owners collect their workers’ drawings, and deliver them to the Market. Each drawing fetches one pound, but the Market can only purchase up to 30 drawings, and therefore only a small percentage of the “products” will be sold. It will take a few minutes for the Market to sort out the best 30 drawings.

Step 8: Before the next round begins, you must make sure that each factory pays its workers’ wages, which is 2 pounds per worker, and pays the Bank of England its loan payment of 10 pounds. Note: after the first round, if a factory has not sold any of its drawings, it will have four pounds remaining. If it does not sell significantly more in the next round, it will be unable to make its loan payment and will go bankrupt.

Step 9: As soon as the workers are paid their wages, go around and collect their rent and food bills, which amount to 2 pounds.

Step 10: while the factories are figuring out how much money they actually have, check in with the different groups of students.

-First, you should go to the unemployed surplus workers, inform them that they are starting to die, and ask them if they have any ideas on how to get some money. Make sure they understand that in late 18th and early 19th century Britain, as in most industrializing countries, there was little or no form of welfare or unemployment benefits, and discuss with them what their options might be.

-Second, talk with the factory workers. Ask them what the experience of having to do so much repetitive work was so fast. You might suggest to them that they

could consider going on strike or forming a union to demand more money. You may also want to talk with the factory owners and ask them if they have unproductive workers that they want to fire.

-Third, talk to the factory owners. First, see how much money each of them made in terms of profit. Second, you can produce the stamps and inkpads at this stage. This is the key moment in the game. Only one or two of the factories will be able to afford the stamps. You may want to decide there how much you will charge for the stamps, based on the financial situation of the factories. However, one suggestion is 15 pounds. It is imperative that at least one factory buys the stamp kit. The factory that buys this stamp kit only needs one worker; the rest can be laid off to save money. If factories need more raw materials (paper) they can purchase more.

Step 11: Begin round two. At this point, whichever factory has the stamp kit should be able to vastly out-produce all the other factories still using hand-drawing, by a factor of ten or more. Furthermore, every image will be superior to almost any hand-drawn product, so every drawing should “sell” at market, making it virtually impossible for any other factory to earn money. By the end of this round, the factory with the stamp should be in very good financial shape, and the others will be likely bankrupt or close to it; by the end of the third round they certainly will be if they are not able to acquire a stamp of their own.

Step 12: Go to round three. By the end of round three, the game should be finished (though you can extend it if you want to).

After the Activity

Here are some suggestions for a post-activity discussion:

1. Ask the workers to describe the experience of doing “factory work.” Was it boring or uncomfortable? Depending on the background of your students, you might also ask them if any of them (or their family members) have experience working in a factory.
2. Were the workers able to organize or do anything to improve their situation? How could they change the rules of the game to make it more fair, not just for them, but for the unemployed as well?
3. Ask the factory owners to describe their experience to the rest of the class. How much money did the surviving factories end with? If they got a stamp, what

- enabled them to do so, and what was the impact? If not, were they able to survive in spite of their technological disadvantage, or not?
4. Were the unemployed able to survive in any way? What were some ideas they came up with as far as ways to get money?
 5. What were some real examples of products and technology represented by the drawings and stamps in the activity? Examples might include cotton or wool as raw materials, or the spinning mule and steam engine as technological innovations.
 6. How did the factory owners get the most productivity from their workers?
 7. What is the definition of “capitalism”? What is “capital” and why is it so important in this game? Why was it so important in the industrial revolution?

Student Assessment

The following are short answer questions based on this activity and more broadly on the subject of the industrial revolution Britain. These can be used as homework or on a written exam or in class assignment.

1. Why was the Bank of England important in driving the industrial revolution in England? What might be a reason that other countries in Europe were later than England in having a central bank that could provide loans for business?
2. Name two of the most important inventions that helped fuel the industrial revolution? Who invented them, and how were they used to increase profits? Did the inventors profit from them?
3. Who were the Luddites? What did they want, and what were their methods? What happened to them?
4. How did the conditions of factory workers lead to reforms?

The following are more in depth assignments, which can be done as homework or a longer answer (essay) question on an assessment:

1. What were the inherent flaws in the structure of the game? If you could rewrite the rules of the game to make it more fair, for workers, the unemployed, and the factory owners, what would you change? **(Note: this is important in preparing students for the socialist factory [Bratislava] activity.)**

2. Read a passage from the following works describing life for the working class (*North and South* by Elizabeth Gaskell **OUP 1973**; *The Condition of the Working Classes of England* by Friedrich Engels; *Hard Times* by Charles Dickens). How is life in the factory and in the slums of cities like Manchester depicted in these famous writings?

3. Describe, in detail, some of the solutions proposed to fix the problems of the industrial revolution, such as liberalism, anarchism, and communism. What problems did these movements try to solve, and how?

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Student Version (Draft)

Introduction

In this activity, you will participate in running a factory, in conditions similar to those encountered in the British city of Manchester, around the year 1800, when the industrial revolution was gathering strength. You will either be an industrialist or a worker, and you will have to adapt to rapid, sudden technological innovation to survive and prosper. It is a time of laissez-faire capitalism, so there are few rules. There is great potential reward at the dawn of the industrial revolution, but also great potential risk, for factory owners and factory workers alike. Your goal will be simply to make as much money as you can.

Scenario

In the later part of the 1700s, a handful of entrepreneurs in Great Britain realized that some new inventions could be used to create much more efficient methods of manufacturing products, such as cloth and iron. These people included men like Richard Arkwright, Matthew Boulton, and James Watt. The inventions they acquired—or in some cases invented themselves—were really versions of earlier inventions, which had been improved upon over several decades. These included the steam engine, which could be harnessed to drive many machines, or the spinning mule, which could be used to weave cloth out of yarn hundreds of times faster than could a human worker.

Great Britain had long been known for its textile industry, especially wool from places like Lancaster. For centuries, wool from lambs was spun into fabric for clothes (and other things) by commonplace farmers, who needed a way to make money in the winter when they couldn't grow crops. They would take in some wool, and work in their homes—usually small cottages—on a spinning wheel or a loom, spin and weave the wool into cloth and sell it at a small profit. But this all changed in the late 1700s. Large cotton plantations, worked by African slaves, sprang up in the British American colonies (some of which were in the soon to be newly independent United States), including Georgia and South Carolina. As cotton was considered better than wool, huge amounts of cotton began to flow into Britain—this was how southern slave owners made their money. Much of it ended up in the western British port city of Manchester.

People like Arkwright realized that by using machines to spin and weave the cotton, and in some cases also wool, they could save immensely on labor costs, and thus make huge profits. Only, it had to be done on a large scale—known as an economy of scale—to

justify the huge amount of money it cost to purchase the new spinning and weaving machines. A new phenomenon was born: the manufactory, later shortened to just “factory;” a large building housing many machines where workers all came to work for a wage. Because Manchester was where so much cotton came into the country, it became the site of numerous factories, most of them textile factories.

The “cottage industries” were quickly put out of business, and the commoners who worked at home now had to go work for the factory to make money. There, they found a new form of life, one that was regimented, disciplined, and dangerous. Accidents operating the machines were common, and people, including children, were required to work as many as 18 hours in a day. Some, who lived too far away from the factory to walk home in between shifts, simply slept near their machines. This was required by workers to make enough money to break even at the end of each month. Often, in cities like Manchester, quickly, poorly built slums were built near the factories for the workers, which created highly unsanitary conditions. Soon, cities like Manchester became choked with the polluting smoke of the factories. Famous poet William Blake described these factories as “dark satanic mills” and Friedrich Engels’ study of Manchester in the early 1840s, describing the terrible conditions of the workers’ lives and the city in general became one of the founding texts of the newly emerging communist movement.

The factory owners, now known as “industrialists,” often reaped immense profits, although they also took on great risk. Often, to get the money needed to build a factory, they had to borrow it. If they could not compete with other industrialists, they could not pay back their loans, often going bankrupt, ending up even poorer than the workers in the factories they once owned.

Many of the people who were put out of work by the new machines were not even able to get a job in the factory. These people were simply destitute, and formed a large “surplus labor force” who would often show up in crowds of hundreds each morning at the gates of factories hoping for a job opening. This meant that factory owners could fire any worker they wanted knowing there would always be a replacement. It also meant that the factory workers found it very difficult to organize a union. In some cases, groups of workers destroyed the machines and burned the factories that they felt had caused them such misery. The most famous of these groups were the “Luddites.” (Since then, the term “Luddite” has come to mean anyone opposed to or afraid of technological innovation). Needless to say, the police and even armed forces were brought in to stop such activities.

How does it work?

In this activity, most of you will either be a factory owner or a worker. There will be three or four factories, depending on the size of the class, and each factory will be run

by two industrialists, who will call themselves a company. (They can create the name of their own company, though often it is simply the two last names of the industrialists.) Therefore, between six and eight students will be industrialists. Everyone, or almost everyone, else in the class will be workers. (There are two other roles—the Bank of England and the Market, which may be played by the instructor or other students). At the beginning of the game, some of the workers will not have jobs, and will be “surplus” labor. Each factory must employ at least two workers, and ideally between two and five.

Each factory will be producing a product. In this case, drawings. Your instructor will tell you what image you will be drawing. Your instructor will also make available the raw materials you need for drawing, namely, paper and pencils. However, these are not free (explained more below).

Money is an important part of this game as it was part of the industrial revolution (and remains so today). At the beginning of the game, all the factory owners are given a business loan by the Bank of England, played by the instructor. All loans must be repaid, with interest, in payments at the end of each round. Money is also used to pay the wages of factory workers. The goal of the game is for everyone to get as much money as they can.

The activity proceeds in “rounds” of five minutes each. Before the first round begins, the factory owners must purchase their “raw materials” (paper and pencils). When the round begins, the workers must begin producing the product as fast and as well as they can. Your instructor will notify you when the round is over, and work will cease. At the end of the round, the following things will happen:

1. Each worker will be paid their wages.
2. The factory owners must take their finished product to the market to sell (also explained below).
3. The factory owners must also make their loan payments to the bank, or risk losing their business and going bankrupt.
4. Factory owners must also purchase more raw materials if they have run out.
5. Each worker must pay for rent and food.

Once these steps are completed, the next five-minute round begins. This will proceed for at least three rounds, and potentially more if the instructor feels there is sufficient time. In between rounds, the instructor will check in with the various groups (industrialists, workers, unemployed), giving them guidance and suggestions on how to

strategize. Once the final round is concluded, the instructor will ask the groups to report on their experiences—for example, if you were a factory owner, how did your business fare? If you were a worker, did you lose your job, or were you able to survive? What was the experience like? The instructor will then conduct a review with the class generally about the industrial revolution.

Further rules

1. The factory owners may fire any worker for any reason. This can happen in between rounds.
2. The Market is limited in how many drawings it can purchase, so not all the drawings will be sold. Furthermore, the Market will only purchase drawings that look the neatest, most accurate, and which are the most consistent.
3. If a worker goes more than two rounds without buying food or rent, they begin to starve. If they go more than three rounds, they die. Once a worker is dead, this only means that they cannot be hired any more.
4. Workers make their rent and food payments to the instructor. Partial payments will not suffice; the full amount must be paid.
5. If a factory does not make its loan payments to the Bank of England, it is in default and must close. All its workers are unemployed, and the former owners of the factory must become workers as well and find a job.
6. The instructor also represents the State—the government of Great Britain. He or she may intervene as the government, or the law, at any time if necessary.