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THE PRODUCTION GAME

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ABSTRACT

This classroom simulation called The Production Game has been used in basic or advanced Production/Operations Management university courses, and it is designed to simulate a real-life manufacturing environment.

It is not a computer simulation nor a "board" game. Instead, students actually form their own companies, divide managerial duties and produce a product. All of this occurs within a classroom setting. Once students have formed their team, they are given instructions for how to run the simulation. Materials used in the simulation include one-half sheets of construction paper (raw material), product specification, and production equipment (scissors, glue, rules, etc.).

In its simplest form, students have 30 minutes to make as many products as they can while trying to control inventory, quality, labor and financial matters. The remaining 20 minutes is used to evaluate the team's performance. These comments and suggestions can be used by the participants to improve their operation before the next "production run."

INTRODUCTION

Usually one class or a 50-minute period is required for students or trainees to organize their management team. In order for this to go as smoothly as possible, have the students read the first part of their Study Guide where it describes, "[How To Play The Game](#)." This material is given to the students before their actual "organization period" so they can have time to digest the information in the manual. The time the assignment is made would also be an appropriate point for the instructor to tell the students what they will be making. The instructor can choose their own product or one of the twenty or so products. With initial production runs it is wise to choose one of the simple products to make.

Once the instructor chooses one of the products, he or she then reviews the product specifications with the students so they know what will be expected of them. In more advanced versions of the game, students do not know until the day of production exactly what types of products they will make. Sometimes they are given several designs to choose from and they must decide which one is best for them. The reason for this is to analyze the interaction between design and manufacturing often a critical ingredient to business success. If this ingredient is not important to the instructor, then simply give students the design ahead of time and focus exclusively on the actual production process. During this same time, instructors will also want to review with students how they will be evaluated.

With this initial organization out of the way, future classes can be devoted to making production runs and analyzing what went well and what needs improvement. Once the "company" makes a production run, each management team assesses its own performance, then streamlines and improves their organization when needed.

This sequence of making production runs (which usually lasts about 30 minutes) and then assessing their performance can occur as many times as the instructor chooses. In the basic or more simple versions of the game, this analysis occurs immediately after a production run. A practitioner who has been watching a run can be used because the instructor is so busy playing the role of the customer that they can overlook some important aspects. If a practitioner observer cannot be found, use a couple of volunteer students per work group.

This analysis is critical to making improvements in this production process, so the more analyzers, the better. In later "manager's meetings," participants can review their results and the suggestions of these consultants to come up with improvements they can implement before the next production run. These meetings can also occur during the next class period or outside class.

As in industry, there are always improvements that can be made. Each time participants make a production run and analyze the results, they learn something new about producing products and services that satisfy the customer's requirements. The simulation has been used as a supplement to courses and as the activity students did in an eighteen-week course. They were still making improvements, when the course ended!

The key to making improvement is to insure that participants assess a variety of performance measures such as quality, inventory, labor utilization, profits and so on. Since they collect information on these measures, after a run and analyze them during their manager's meetings, they always have areas to improve - just like in industry.

Students are provided a whole series of measures by using the forms and reports that are in their Study Guide. A supplemental form called a Stockholder's Report is used when the instructor wants participants to use when the instructor wants participants to summarize what happened, what went well, and what changes they intend to make. By requiring a brief report like this form a company's CEO, it tends to keep their managers' meeting more focused on the problems at hand.