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Party Planning Using Stella

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Party 2006



CMST Summer Institute 2005

Challenge Project

Jody Nagle

Overview

Students involved with this project are planning a winter party for themselves and one friend each. They plan the party set up, supplies needed, cost, and how it will be funded.

Problem Statement

The students are planning a party to reward themselves for a challenge project completed well. They will design the party from the start, including how the party will be funded.

Due to the time of year, it was decided that shoveling driveways in the neighborhood would be a good way to obtain the funds needed. Donations would also be accepted from friends and neighbors.

Math questions:

- How can the best party be planned with a minimum of expense?
- Will shoveling driveways provide the necessary funds needed? (Will demand meet the amounts needed?)
- Will we have to ask those attending the party to supply some of the funds?

Goal

Our goal is to plan a party that will result in having all the necessary supplies and food, but not have to charge people for attending.

Objectives for regular education and inclusion students

Students will be able to plan for the party, seeing how outside influences may or may not affect cost

Students will be able to estimate prices and be able to check their results using TI calculators.

Students will be able to manipulate a Stella model and make predictions from it.

Students will be able to make a poster or write an essay that describes their predictions about the cost of tickets.

Meetings

Day One

Idea of planning a party was explored by the students. It was decided that it would be an enjoyable challenge.

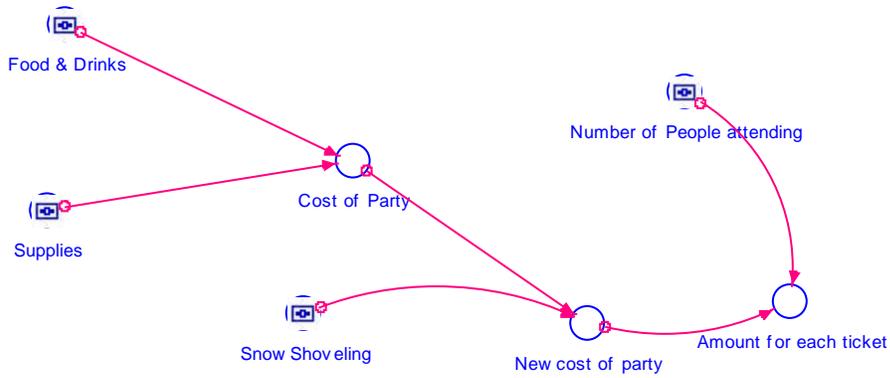
Students then began to brainstorm about what was needed to plan a party (supplies, food, music, decoration, etc.) Using the list created by the students, they then estimated the possible total cost of the party.

Using the internet, students began to research various stores in close relation to the school to determine actual prices of the supplies needed. They discussed the need of items such as a Wegmans card or a Tops card to get better prices at those stores.

We then explored Stella to introduce the students to how it worked. The loved "playing" with it.

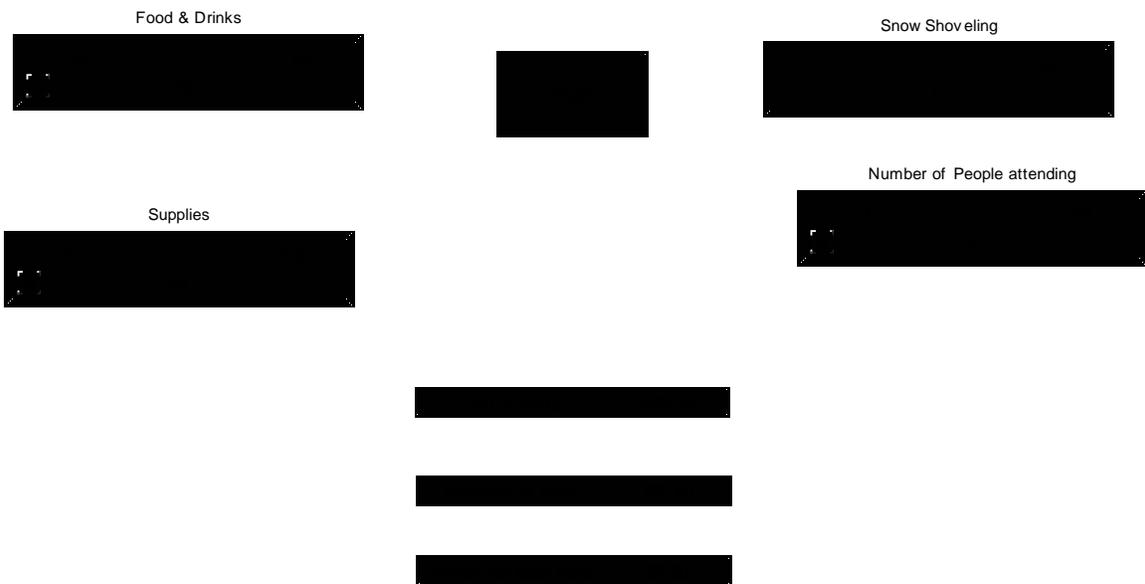
Day Two

Students began to plot how to calculate the cost of the party (expenses, donations, fund raisers). They determined which things were variable (cost of utensils, napkins, etc.) and which were constant (cost of shoveling a driveway). How would amounts affect the final cost? [This lead into talking about the sliding bars used for Stella.] At the board we began to create the flow charts needed for Stella.



After deciding which items would be variable, the necessary slides were created (Food & Drinks, Supplies, Snow Shoveling & Number of people attending).

We then played with the buttons to find any errors or problems



The students were content with the results and the work they had accomplished.