

Artifact: **Island Wars**

A classroom game created by Debra Lowe
and presented by Debra Lowe and Katherine Christensen

It is very strange for me to write a reflection of this artifact because I created it. I'm afraid I cannot look at this in a completely objective manner because of the many times I have presented it. However, I do believe I have learned many things about my own product, and better understand problem-based learning (PBL) through examining the relationship between the game and the class's definition for PBL.

The Artifact

This is a game played in two phases. The first is planning, and the second is (sometimes literally) execution. Students generally are introduced to the game on the first day, are put into groups (mostly self-selected) and are allowed to become familiar with the materials. On the second day, all groups work independently to create their islands. Tally sheets and other materials must be turned in by the end of day two. Beginning with day three, each island competes against the others with the goal to be the last island standing. What this means is completely negotiable.

Materials for this game are available on my website at:

<http://science.pageofmystery.com/islandwars/islandwars.html>

The "Mother Nature Cards" are at:

<http://science.pageofmystery.com/islandwars/iwcards.html>

And processing information can be found at:

<http://science.pageofmystery.com/2003/iwprocessing.html>

I believe reprinting may not be wise, as the University is attempting to conserve paper. The game is available to all who wish to use it. Additional materials include a die and writing materials for the students. I have never written a lesson plan for this game.

Finding and Choosing the Artifact

When the assignment for an artifact was given, this game came to my mind. The cooperative nature of the game within small groups, and the problem-solving skills which I tried to foster made this eligible in my estimation. I played this with my seventh-grade students in various iterations from 1999-2003. I wanted to introduce the concept of the cell as an extended metaphor which we would reference throughout the unit. I thought of the analogy of an island as appropriate, and over time, this game developed. When the game was created, I did not do so with the intent of creating a PBL experience, but as a fun and creative way of getting the students to think about cells to facilitate learning.

I was actually a little hesitant to use this game. The actual process of playing takes a week, and there is much we cannot replicate in a 45 minute block. Besides, I know that some of my teaching strategies are unique, and may not transfer well to an audience of graduate students. However, I also

realized I had an opportunity to have my game reviewed by adults and in a setting where its structure can be compared to more standard PBL experiences, and so the excitement won over.

While I recognized there were elements of PBL in the game, I wondered if it would stack up. This game is far more nebulous than any medical school PBL experience. It borders on the disorderly. It is not highly iterative, although each progressive turn allows students to discuss decisions.

Before the Presentation: Artifact and PBL

Before the presentation, I have had experience with the artifact in the classroom. The students seemed to enjoy the game, but I worried whether they were learning sufficiently as it was presented. I found it useful for reference, but had some doubts that it was worth a week of effort in class. It was fine as a semi-educational diversion, but was it sufficient as an object of instruction? I still wonder.

In spite of my doubts, I have enjoyed using this game in the classroom, and would probably do so again. I never used this game with adults, and I hadn't considered it in light of PBL definitions. Before the presentation, my thoughts on PBL in general were also fairly ambivalent. I could see how it can be useful within the classroom, but hadn't really thought through the repercussions and effects of PBL on the students. I also never thought to try and classify Island Wars into any specific learning style. Again, it seemed to have many aspects of problem-based learning, but I hadn't put it to the test.

The Presentation

As we were presenting, I came to appreciate that many aspects of the game were in alignment with PBL. The small groups and common, loosely-defined problem fell into the definition well. Also, as students had to learn how to deliver commands in the game through trial and error, the process seemed to have benefit. It fit better into problem-based learning than I originally thought, though with a great degree of variance.

One major difference to PBL, both in the discussion and while playing, is the fluid nature of the game itself. There was no single problem (although island survival could be argued), but a series of problems. The game shifted and flowed in a nearly organic fashion. While I have experienced this in the classroom, I didn't appreciate how unusual this was until contrasted to other PBL artifacts. It is almost a hyper-PBL or perhaps meta-PBL experience. Speaking of meta, the game was fairly lacking in meta-analysis. There would be some within the individual groups, but the game could use more. Also, an increased role of a facilitator may help the strategies of the students.

The way I saw my own game began to change greatly as a result of the presentation. I began to see that applying concepts metaphorically was very difficult, even for adults. The condensed time had a fair deal to do with that, but more analysis after the game would be good for my students. The group worksheet I have is a start, but discussion or debate may actually help students see the connection between the island and the cell better. I was also intrigued by the comments to extend the deliberating time for each turn. I would be very interested to see whether this aided the learning process. Originally there were no time limits per turn, but to speed up the game, they were later imposed.

If I Had To Do It All Again...

I was fascinated with the differences in play between adults and adolescents. Foresight, strategy, planning, loyalties, and spending were all vastly different. I would definitely have recorded the time so I could think more about the comments. I know if I was presenting an artifact made by another person, I wouldn't have that need.

If I had to do it all over again while teaching, I wonder what would happen if students could play the game twice, but the second time, they had no catalog, and only a blank tally sheet. I wonder if they would be able to apply the principles they learned about cells to think about the needs of an island. But again, that would be another week of education spent on the game, and that would be hard to justify.

For the class, everyone was really engaged when we were playing the game. This was encouraging. However, when we went into discussion, there were fewer volunteers that I would like. If I were to do this again, I would give the students a thought question... something to think about while playing the game... and then we would start the discussion with that question. I believe this would help the participants transition better between the events. And maybe bring candy. Everyone likes candy. Otherwise, the discussion went well, and I learned from it. I hope others did too.