Weapons of Mass Creation

Andrew Monterroso
amonterroso18@mail.wou.edu

Follow this and additional works at: https://digitalcommons.wou.edu/aes

Recommended Citation
https://digitalcommons.wou.edu/aes/188

This Poster is brought to you for free and open access by the Student Scholarship at Digital Commons@WOU. It has been accepted for inclusion in Academic Excellence Showcase Proceedings by an authorized administrator of Digital Commons@WOU. For more information, please contact digitalcommons@wou.edu, kundas@mail.wou.edu, bakersc@mail.wou.edu.
Math Wars

Math wars is about two groups who want a different way of teaching math to students. On one side you have the Traditionalist, and on the other we have Reformers.

<table>
<thead>
<tr>
<th>Traditional approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher-led lectures</td>
</tr>
<tr>
<td>Students passively take notes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reform approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student centered</td>
</tr>
<tr>
<td>Student led goals</td>
</tr>
</tbody>
</table>

In most states like California the state board makes all the decisions involving:

- school curriculum standards
- frameworks
- adoptions of instructional materials

Math wars is important because its outcome determines if we can use effective classroom approaches, and throw away the idea of ability tracking. Effective classroom approaches give the students more freedom to work with their own thoughts and ideas in the classroom.

Project-Based Learning (PBL)

Project-based learning (PBL) focuses learning around projects. - projects are complex tasks, based on challenging questions or problems
- involves problem-solving, decision making, or investigative activities
- allows for self-awareness of learning and knowing while being context dependent

Student-Regulated Learning (SRL)

Studies are also looking into student self-regulating learning (SRL) being integrated with PBL. It is no different to PBL and its applications, but the teacher’s primary role in PBL is to structure activities to stimulate motivation and encourage reflection, and to facilitate learning through scaffolding, feedback, guidance, and prompts for thinking

What can we do?

With the given area, say 32ft$^2$ and we have strawberries, at 2ft$^2$, corn, at 4ft$^2$, and carrots, at 1.5ft$^2$. A resident wants at least 6 strawberry, 4 corn, and 5 carrot seeds planted. What are some ways to satisfy the residents’ needs? We give the students time on their own or in groups to find ways they can solve this, then based in their knowledge we can go over it or introduce the topic needed to solve the problem. As they are enjoying themselves learning to communicate with each other through their findings and make diagrams, graphs, or equations to independently find a possible answer, we can observe and help where needed while make notes on their process.

Communicative Approach

The communicative approach is described as “the different ways that mathematics could be communicated through words, diagrams, tables, symbols, objects, and graphs”. For example we have three ways we can represent an equation for any given math problem relating to functions.

References