

WHAT DESIGN-BASED LEARNING *IS* AND *IS NOT*

by Doreen Nelson

| Design-Based Learning IS NOT | Design-Based Learning IS | So What? Why It Works |
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| ...traditional teaching. | ...the teacher as facilitator, observer and guide. | Students learn that there are no wrong answers and that their opinion counts. They gain confidence in justifying their thinking as they try out ideas in a safe environment and find that there are many right answers. |
| ...a program, a curriculum, a pre-scripted lesson plan or arts & crafts. | ...a methodology for delivering required K-12 curriculum that teaches life and career skills. | Teachers have the flexibility to determine how and when to integrate DBL challenges with Common Core Standards. DBL has curriculum embedded assessment. |
| ...contextual-less learning. | ...a comprehensive sequence of connected curriculum-related design challenges. | Teachers use district pacing guides and content specific standards to develop an engaging, integrated curriculum. |
| ...a miniature city. | ...building a city to function as a vehicle for students to connect concrete ideas to abstract academic concepts, and to imagine creative solutions to challenges that arise in building and running the city. | The city lends itself to the discussion of numerous academic subjects such as characters and plot, government systems and biological functions. Students learn to revise their solutions after discussion, textbook study and research. Building an original model of a city, a colony, a civilization or a business targets higher level thinking and promotes shared problem solving. |
| ...teacher-centered. | ...student-centered. | Students learn to communicate by role-playing the jobs of city life. They become both self-directed and interdependent as they discuss, describe, explain and justify their solutions to design challenges. |

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| ...replication or making a model of anything that already exists. | ...very rough, student-built 3-D solutions to problems that have been solved by others throughout history. | Students develop entrepreneurial literacy as they construct original designs by following pre-set criteria. They present their 3D solutions for peer feedback to expand their critical thinking, creativity and ability to communicate and collaborate. |
| ...project-based learning, a frontward information delivery method. | ...Backwards Thinking™. Students develop never-before-seen 3D solutions to problems posed as design challenges, before textbook study and research. | Students are engaged from the start at the higher level thinking skills on Bloom's Taxonomy when they are asked to solve problems. In the process of finding solutions, students develop the lower level skills on Bloom's Taxonomy. (Other methods begin at the lower level and do not move up to higher-level thinking.) |
| ...perfect and aesthetically pleasing products that replicate past inventions. | ...unfinished, imperfect, never-before-seen 3D designs that invite revisions based on new knowledge while encouraging learning from mistakes. | Teaching students to justify their designs and to think critically fosters their ability to become active participants in the process of learning. |
| ...small ideas. | ...powerful ideas, including universal concepts, principles, values and morals. | Students' knowledge of the powerful ideas behind what they have learned leads to the application of that knowledge to another field or situation. |
| ...individualism or competitiveness. | ...community-centered, fostering civic literacy, global awareness, active citizenship, governance and cooperation. | Students learn to be active members of their local and global communities. |