Mathematics in neoplasticism, neoplasticism in mathematics

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Abstract

Teaching today, in the 21st century, in the age of drones, 3D printers and artificial intelligence, can no longer be the same as it was 10 or 40 years ago. Everything is changing. The question is whether we can still teach in the same traditional way? Can students only acquire new knowledge in a dynamic everyday life in the traditional way? Only with chalk and a blackboard? How can we strike a balance between traditional teaching and the use of technology? How can we use technology as a tool for acquiring new skills in combination with traditional math/geometry skills instead of just using technology for technology's sake? People who love math/geometry know that it is all around us, in our lives, in the workplace, in science, in business, in art ... It is not possible to give an answer to all these questions, but the main idea is to try. To answer some (or all) of these questions, we have prepared activities for students and teachers. We want to show them how to teach and learn math/geometry in a different environment, namely art. It is well known that art and mathematics have been very closely linked throughout history. From the artists of ancient Greece to the greats of the Renaissance and the outstanding designers of today. In the all too rich world of art, we have chosen neoplasticism as our artistic environment. By combining classical work with the use of Sketchpad, a dynamic program for teaching mathematics, students and their teachers discover a new world, a combination of mathematics and art. They learn new skills. However, the best thing is that they apply the adopted outcomes through "play" math/geometry (from elementary to high school) in art and vice versa. This takes teaching and learning to a higher level. New research skills (dynamic geometry) and correlations between math and art are adopted.

Key words

art, geometry, learning, mathematics, neoplasticism, Sketchpad, teaching

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