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## Phenomenon-Based Learning in Finland Inspires Student Inquiry

By Guest Blogger on October 31, 2018 3:46 PM

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*Editor's note: Earlier this year, Sam Northern, a National Board-certified Teacher-Librarian at Simpson Elementary School in Franklin, Kentucky, traveled to Finland as part of the [The Fulbright Distinguished Awards in Teaching \(DAT\) Program](#). While there, he observed classroom instruction and studied best practices in phenomenon-based learning, which allows students to study real-world issues and explore their curiosities.*

### By guest blogger Sam Northern

Finland, a geographically remote country in Northern Europe, consistently tops the rankings of the world's education systems. Not bad for a nation that mandates just one standardized exam at the end of 12th grade. Despite the Finnish education system's success, in 2016, the country underwent a national curriculum reform. Since then, Finnish students receive periods of phenomenon-based learning (PhenoBL), a type of inquiry-based learning. A phenomenon is defined as something that exists and can be seen, felt, tasted, etc., especially something unusual or interesting. Examples of phenomena include scientific discoveries, trends in technology, and natural disasters. Learning about or witnessing phenomena sparks our curiosities. With PhenoBL, students interact around real-world issues to investigate a problem or explore a curiosity from multiple vantage points. Students [study phenomena](#) as complete entities in their real contexts along with related interdisciplinary [or intersecting] information and skills. It is the process of exploring questions using evidence collected from research. The information that is gathered is studied with and against existing models and theories. The insight gained from their investigations lead students to new understandings. Finnish students use this hands-on approach to explore themes ranging from entrepreneurship to space exploration.

Figure 1

Inquiry Phases	Learning and Research Strategies
Motivate/Connect	Inspire - Connect to prior knowledge and interests Ask essential questions Wonder
Question - Plan	Develop and refine inquiry questions Identify resources
Investigate	Read closely and locate evidence Explore differing viewpoints
Construct	Synthesize meaning and viewpoints Write
Present	Develop new knowledge Present knowledge product
Evaluate/Reflect	Measure growth and plan for the future Evaluate product

Figure 1 outlines learning strategies for each phase of the inquiry process, as adapted from the [American Association of School Librarians](#). Through investigative research and product design, students master learning standards and develop passions that last a lifetime.

### PhenoBL in Action

In Finland, I observed The English School in Helsinki conduct a phenomenon week that centered on the concept of time. The English School's entire student body from pre-school to grade six participated in the phenomenon-based learning event. Students approached it from many angles: First and second grade classrooms learned about Finnish clockmakers and then constructed their own grandfather clocks out of cardboard. Third grade students created calendars from different cultures throughout history. Fourth and fifth graders projected the future of

their city by designing blueprints and maps. Sixth grade classrooms used the phenomenon of time to create visual itineraries for their annual class trip to England. Every single project was the result of questions posed by students. Students' inquiries about time motivated and directed the learning process.

### Benefits of PhenoBL

Phenomenon-based learning gives students the opportunity to *explore*. I observed a sixth grade class in Finland use high-tech virtual reality equipment to explore [Google Earth](#). Students viewed locations from around the world in three dimensions. They even interacted with the environment using motion-tracked handheld controllers. For the countries selected, students prepared detailed itineraries and travel brochures based on their research.

During PhenoBL, students *create*. Finnish students explored design during their phenomenon-based learning week. After researching famous Finnish designers, students used [Tinkercad](#), a 3D design program, to make their own creations. Designs ranged from the practical (furniture) to the imaginative (new modes of transportation).

Students use PhenoBL to *advocate*. Some Finnish seventh grade students researched the amount of water usage in their community and in their homes. They created graphs depicting this information along with facts and statistics to show the need for conservation. In addition to the research, students programmed LEGO robots to solve a set of missions that pertained to water—how we find, transport, use, or dispose of it. At the end of the project, groups presented their research, programmed robotics, and proposed water conservation solutions to a panel of judges. The project began with students' desire to explore real life phenomenon and create their own models, which led them to advocate for action.



PhenoBL also promotes teacher *collaboration*. At Espoonlahti School in Finland, teachers from different disciplines team up to develop and implement interdisciplinary phenomenon projects. For example, art and physics classes collaborate to learn how to use lighting when photographing. Biology and cooking classes collaborate on projects to learn about marine life before preparing special seafood dishes.

### A Lasting Impact

The results of PhenoBL extend beyond a final presentation. Students will experience the inquiry process, develop 21st-century skills, and discover a new or renewed passion for learning. Still, a culminating product is a major component of inquiry-based learning because it gives students the opportunity to share their learning with an audience.



There are a number of formats students can choose from to demonstrate their learning. PhenoBL encourages students to consider new alternatives for sharing their projects. I have seen students create digital and physical posters, three-dimensional models, graphic designs, and short videos. All of these presentation methods are visible and, therefore, acceptable. The presentations turned out to be a lot of fun and, hopefully, positively affected someone in the crowd.

Yes, a fascinating phenomenon is at the center of Finland's newest instructional model. Yet, without students engaging with the elements of inquiry, the phenomenon is like the Sun without orbiting planets. Students' curiosities about the topic, their quest for information, and their efforts constructing products that demonstrate learning is what makes the phenomenon so interesting. PhenoBL sparks students to do more than shoot for the stars. It challenges them to pursue their dreams through a new way of learning that was previously left uncovered.

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