# What is a Phenomenon-based Learning approach?

**Phenomenon**-based learning is a learner-centred, multidisciplinary instructional approach that is based on student inquiry and problem solving. ... This means that a topic must be a real-world issue or "**phenomena**" and that learners need to apply different perspectives in order to study the topic.

Phenomenon-based learning (PhenoBL) has attracted growing attention since Finland's National *Core Curriculum for Basic Education* mandated its use in Finnish schools (Finnish National Board of Education, 2016). Finland's curriculum endorses PhenoBL as a progressive approach to curriculum and pedagogy suitable for 21st Century learners.

This approach breaks down subject-based compartmentalisation of knowledge. Instead of focusing on a specific subject such as Mathematics, Literacy, or History, phenomenon-based classes explore phenomena that cross subject boundaries (Silander, 2015). The approach represents a transition to a new cross-curricular way of thinking about organising learning in schools.

In Finland, students aged 7-16 are required to participate in at least one multidisciplinary PhenoBL module per year (Halinen, 2018). The modules are designed to explore real-world phenomena that can be viewed from competing and complementary viewpoints.

Subject-based classes remain, but where they may only utilise one subject-specific angle to address a topic, a multidisciplinary, PhenoBL learning module encourages students to bring together knowledge from all subject areas to see an issue from a holistic lens.

#### **Five dimensions of PhenoBL**

According to Vasileios Symeonidis and Johanna Schwartz (2016), there are five dimensions of a phenomenon-based approach to education: holisticity, authenticity, contextuality, problem-based inquiry, and openended learning processes. Combined, these dimensions provide a working model for educators when designing PhenoBL module.

Holisticity refers to the need to decompartmentalise education. A holistic approach will address an issue from multiple viewpoints and identify how different viewpoints dovetail or contradict (Halinen, 2018). Viewing phenomena from the viewpoints of multiple different subject-based disciplines helps students to see the world in its complexity and seek out inclusive solutions to complex problems.

The dimensions of authenticity and contextuality highlight the importance of exploring a real-world phenomenon. Authenticity refers to applying knowledge to something tangible, rather than engaging with only hypothetical and theoretical ideas (Symeonidis & Schwartz, 2016). Similarly, a contextualised phenomenon is one that exists within tangible time and space. The focus is not on a 'topic' *per se*, as a topic can be a sterile subject to be analysed in isolation from its context. A phenomenon, by contrast, is connected to a context in which it emerges.

Problem-based inquiry and open-ended learning processes are also interlinked dimensions of PhenoBL (Silander, 2015). When students explore phenomena, they are required to identify and investigate problems or areas of interest that may arise. The aim is for students and teachers to collaborate in creating investigations that are achievable and relevant to areas of the phenomenon that spark the students' interests.

### Applying PhenoBL in the classroom

When implementing a PhenoBL lesson, teachers and students need to negotiate a phenomenon for analysis. Sam Tissington (2019) highlights the value of using current affairs and local issues as springboards. Likewise, Jenna Lähdemäki (2018) presents the example of Year 8 students in Finland who were asked to choose a phenomenon related to Europe. Within these parameters, the students in this example chose Auschwitz, Food Culture in Germany, and European Art as their phenomena.

Once a phenomenon is identified, educators should employ problembased and inquiry-based pedagogies to conduct their investigations (Halinen, 2018; Lähdemäki, 2018).

Problem-based learning involves having the class pose a problem to be solved through active learning; while inquiry-based learning involves the use of systematic methods to solve a problem. In my teaching, I consider them to be complementary ways of thinking about moving my students through a process of identifying a phenomenon, defining a problem related to the phenomenon, and conducting an investigation into the problem.

In a PhenoBL approach, teachers may need to structure the lessons in such a way that necessitates students touch on multiple subject areas. Symeonidis and Schwartz (2016) suggest that it may be beneficial for teachers with different subject-specific expertise to come together to help promote a cross-curricular focus during investigations.

#### **Benefits and challenges**

PhenoBL has an eye to the future. It acknowledges that challenges of tomorrow will be addressed by multidisciplinary teams working together

on complex problems like sustainability, urbanisation and the rise of artificial intelligence.

This approach may also help break down communication barriers. When choosing to view a topic from multiple viewpoints, students can be forced to confront contradictory ways of seeing complex concepts like climate change, migration policies, and food sustainability. By seeing the world in its complexity, students are asked to live within moments of uncertainty and accept diversity as a natural occurrence in 21st Century life.

Nonetheless, PhenoBL also has its challenges. Lähdemäki (2018) has highlighted that teachers and students find it difficult to move from identifying a phenomenon to constructing a manageable interdisciplinary unit of inquiry around it. Teachers need to guide students through finding a problem that is manageable enough to explore but large enough to be analysed from multidisciplinary viewpoints.

Another challenge for educators is balancing student-led inquiry with a continuing need to meet and assess curriculum outcomes. Furthermore, subject-based classes should not be considered to be redundant. In Finland's case, PhenoBL does not represent a wholesale reform of curriculum design (Symeonidis & Schwartz, 2016). Subject-based classes remain. Rather, the reforms mandate 'study periods' during which teachers from multiple disciplines come together to teach one multidisciplinary module per year (Halinen, 2018).

#### References

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