# **New Understandings of Emergence Applied to ESD**



## Earth Charter Pedagogy 2.0 : New Understandings of Emergence Applied to ESD by Francisco de Quevedo

★★★★★ 4.4 out of 5
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The concept of emergence has been gaining increasing attention in recent years, both in scientific and educational circles. Emergence refers to the process by which new and more complex patterns and structures arise from the interactions of simpler components. This process can be seen in a wide variety of systems, from the formation of snowflakes to the evolution of life on Earth.

In the field of education for sustainable development (ESD),emergence has been recognized as a key concept that can help us to understand the complex challenges that we face. ESD is a holistic and transformative approach to education that seeks to empower learners to create a more just and sustainable world. It recognizes that the challenges we face are interconnected and that we need to work together to find solutions.

#### **Emergence and ESD**

The concept of emergence has a number of implications for ESD. First, it suggests that the complex challenges that we face cannot be solved by simple, linear solutions. Instead, we need to adopt a more holistic and systemic approach that takes into account the interactions between different factors.

Second, emergence suggests that change can happen in unexpected and unpredictable ways. This means that we need to be open to new ideas and approaches, and we need to be prepared to adapt our plans as we learn more.

Third, emergence suggests that we need to focus on building resilience and adaptability into our systems. This means creating systems that are able to withstand change and that can adapt to new circumstances.

### **Examples of Emergence in ESD**

There are a number of ways that the concept of emergence can be used to inform ESD practice. Here are a few examples:

- Systems thinking: Systems thinking is a way of understanding the world as a complex system of interconnected parts. It can be used to map out the relationships between different factors and to identify leverage points for change.
- Complexity theory: Complexity theory is a branch of science that studies complex systems. It can be used to understand how complex systems behave and how they can be managed.

- Resilience: Resilience is the ability of a system to withstand change and to adapt to new circumstances. ESD can help to build resilience by teaching learners about the importance of diversity, adaptability, and collaboration.
- Adaptation: Adaptation is the process of changing in response to new circumstances. ESD can help learners to develop the skills they need to adapt to climate change and other environmental challenges.
- Transformation: Transformation is the process of creating a new and more sustainable world. ESD can help learners to develop the knowledge, skills, and values they need to be agents of transformation.

The concept of emergence is a powerful tool that can help us to understand the complex challenges that we face and to find solutions. By applying the principles of emergence to ESD, we can create a more just and sustainable world.

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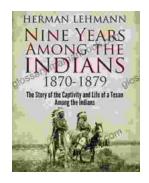


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