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**Project Title:** Technology-Enhanced Inquiry-Based Learning and the Development of Higher-Order Thinking Skills in Geography in a Post-Primary School Setting

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## **Abstract**

Higher-order thinking skills such as analysis, evaluation and creative thinking are vitally important within the discipline of geography. This is because these skills allow geographers to engage with many complex real-world phenomena and issues. These issues include many pressing global concerns such as the future of energy, sustainability, development and the environment. It is by developing higher-order thinking skills that students of geography can engage with geographical issues and begin not only to understand them, but to evaluate and respond to them appropriately.

However, within an exam-focused education system, geography runs the risk of becoming a subject which is viewed as a range of topics about the planet and its people that need to be 'learnt-off' rather than a set of patterns to be explored or issues to be solved. This research is motivated by a concern that students of geography at post-primary level are not always given sufficient opportunities to develop higher-order thinking skills. This project explores how students' higher-order thinking skills might be developed through geography at post-primary school level. This research employs an exploratory mixed-methods case study to investigate how the use of technology-enhanced, inquiry-based learning approach may affect the development of higher-order thinking skills.

The results of this research show that an inquiry-based learning approach is a highly effective means of giving students the opportunity to practice and develop their higher-order thinking skills. It is concluded that technology (especially online geospatial technology) is the key to allowing for the implementation of inquiry-based learning in geography as it allows for access to a great variety of real-world authentic data, as well as a great degree of freedom for the learner. Therefore, this technology, while not the focus of the learning itself is the tool necessary to enable effective inquiry-based learning in geography.