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Earthlearningidea: a global web-based resource of geoscience teaching ideas - an analysis

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Earthlearningidea was an International Year of Planet Earth (IYPE) initiative that has been maintained ever since. Following a failed bid for IYPE funding, the idea evolved of publishing a new school-level teaching idea each week during IYPE, by three Earth Science Education Unit facilitators working on a voluntary basis.

In the lead up to IYPE (2008), the Earthlearningidea name was coined and a website was developed; then a new Earthlearningidea (ELI) was published every Monday during the IYPE itself. The early Earthlearningideas were aimed primarily at teachers in developing countries and so used relatively simple ideas, and equipment and materials likely to be readily available. When a colleague in Argentina offered to translate the activities into Spanish, his offer was readily accepted. Regular publication continued post-2008 and, when it became clear that the activities were being widely accessed in the more developed world, Earthlearningidea plus (ELI+) activities were added, using more abstract ideas and equipment likely to be available in a school science laboratory.

Each ELI is presented as a free-to-download pdf file, with the activity described in accessible English usually on a single page. A second page carries teacher backup information including pupil learning outcomes, age range, timing, principles addressed, resource lists and the 'answers'. Analysis has shown that nearly half the activities involve physical models used for illustrative purposes, whilst other activities focus on thought experiments, investigations, observational approaches, diagrammatical models and developing basic skills. Early years ELI (ELI Early years) activities have been added recently.



By January 2016, 225 activities had been published in English at a current rate of one every two weeks. More than 2 million pdfs had been downloaded at a rate of nearly 50,000 per month and the blog had been accessed in 198 countries. The ideas had been translated into ten different languages with the website carrying nearly 700 translations, whilst the activities had been used to train teachers in at least ten countries.

The unexpected success of the initiative may result from the interactive, hands-on nature of the activities, deliberately devised to develop subject knowledge and develop critical thinking skills by deep questioning; it may also result from the considerable voluntary effort of all those involved. ^{[1]. [2]}

References:

[1] King, C., Kennett, P., & Devon, E. (2013) Earthlearningidea: a worldwide web-based resource of simple but effective teaching activities. *Journal of Geoscience Education*, 61, 37-52.

[2] King, C., Kennett, P. & Devon, E. (2016) The 'All powerful' fieldwork teaching strategy – and other innovative Earthlearningidea approaches. *The Earth Scientist* in press.

