

Creative thinking: assessing students' learning

Following on from the article 'Creative thinking and geographical investigation' in the last edition of *Teaching Geography* (Summer 2011), this article considers how peer assessment and technology can enable students to begin to judge the creative angles that they bring to their work.



Accompanying
online materials

Every child is an artist. The problem is how to remain an artist once he grows up. (Picasso)

Creative thinking is certainly not an innate gift but rather a skill that we can all learn, practice and use. However there is some evidence to suggest that in many schools the high-stakes examinations culture, where getting the 'right answer' seems to be of paramount importance, there is a real danger of systematically teaching students out of their creative capacities (Land and Jarman, 1993). This should be of concern to all educators, as it stands in direct contradiction to much of the recent literature which places the cognitive capacity to create at the very top of the revised version of Bloom's taxonomy (Anderson and Krathwohl, 2001).

The previous article (Renshaw, 2011) outlined four approaches that students can use to encourage more creative ways of working:

- **re-expression:** a technique that encourages the exploration of existing ideas expressed in alternative forms
- **the creative revolution:** a technique which allows the space to explore new ideas and generate alternatives
- **related worlds:** a simple technique that allows existing successful ideas and approaches to become incorporated into your own problem-solving
- **random links:** a technique that allows you to obtain inspiration for problem solving from a completely random and often unusual place.

My year 9 students drew on these approaches to create presentations that evidenced their learning following a series of lessons on glaciation.

Working in groups of four, I asked the students to present their ideas to another year 9 class. To give this process a structure I asked students to frame their presentations around three key evaluation questions:

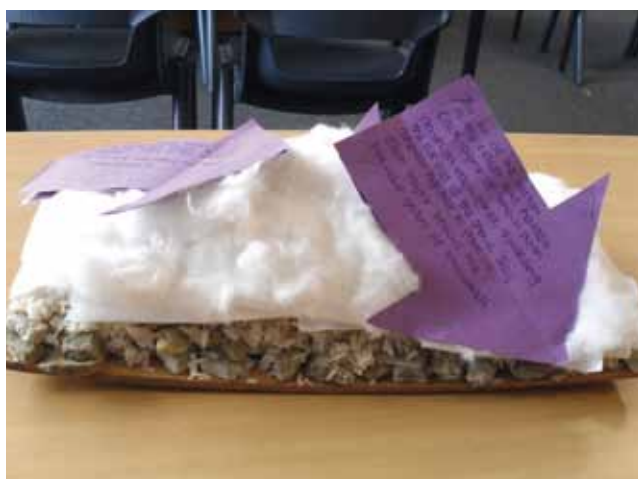
1. What method of presentation did you use and why did you use it?
2. What aspect of the work we covered did you think was most important about ice and why?
3. If you were to complete this task again, what changes would you want to make to your work to improve it?

After all the students had presented their work to their peers, I asked them to come to the front of the class, where I took a digital image of their work. While I took the photographs, I asked the other members of the groups to assess the quality of the responses given to the key questions using assessment criteria.

Once all the students had presented their own work, I explained the use of Voicethread (<http://voicethread.com>) for one final homework task. Voicethread is a spectacularly useful website that allows you to upload pictures, documents and videos which can then be directly annotated with comments. In this case I uploaded the image of each student's work and asked them to add either a text, an audio or a video comment to their work which answered the three key evaluation questions. Following the lesson, this gave the

Figure 1: Creatively showing the albedo effect.
Photo: Simon Renshaw.





students the opportunity to act on any feedback they received from their peers. Once the student comments had been added, I was then free to add my own formative comments on the work the students had completed. The Voicethread was then stored online and could form part of each student's assessment portfolio for key stage 3.

Students produced posters, powerpoints, games, models and in one case even a cake (Figure 1). Providing students with the freedom of presentation method coupled with an opportunity to explain the thought processes behind their decision-making and its relationship their own current levels of geographical understanding, not only provided an increasingly personalised approach to assessment, but was an exceptionally powerful diagnostic tool which teachers could use to gain an insight into the students' learning.

Acknowledgements

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References

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In order to encourage greater creative capacity in our students it is necessary for teachers to bring their own creative minds to the curriculum.

This process of designing and developing a curriculum is demanding. It is a creative process and relies on inspiration as well as good subject and pedagogical knowledge. (Kinder, 2008)

The key stage 3 geography curriculum has given geography departments far greater space and flexibility to select appropriate content for their programmes of study. Both the content and the processes of learning are in the hands of geography teachers, and by engaging in the creative process of curriculum making will go some way to foster the right conditions and incentives for learners to express creatively what they know, understand and feel about their world. | **TG**

Figure 2: Examples of student work demonstrate the range of presentation methods that students selected after completing the creative thinking tasks.

Photos: Simon Renshaw.

Online resources

More ideas for creative geography were shared at the Secondary Phase Committee Workshop (22) at the GA's 2011 Annual conference. To download ideas, go to www.geography.org.uk/download/GA_Conf11Kitchen.doc

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