

Blooming Bioscientists

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Background

- **context**

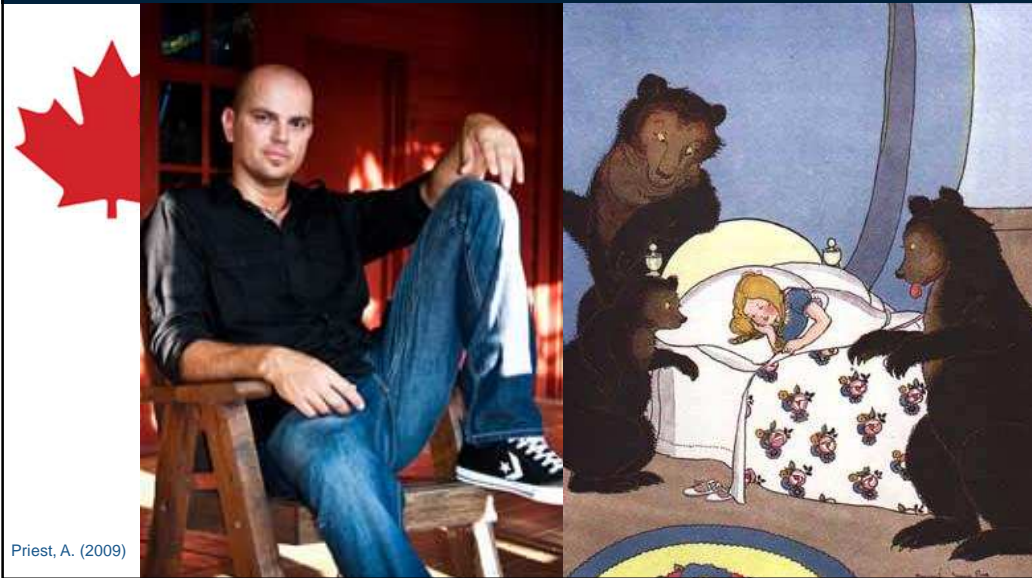
Workshop

- **Sherlock**

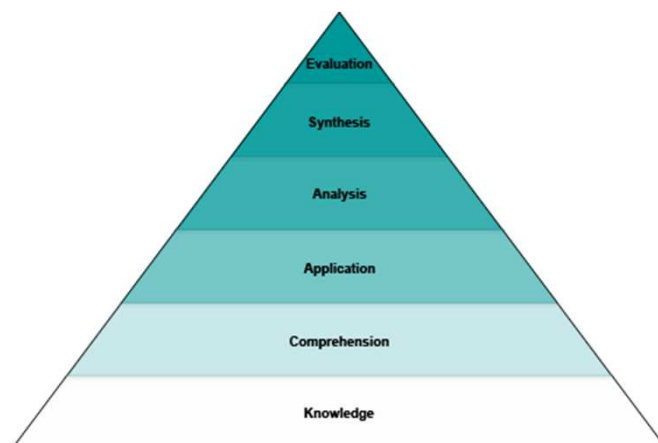
- **Feedback and evaluation**

- From the video exercise
- From students
- From University of Illinois Transparency in Learning & Teaching Initiative



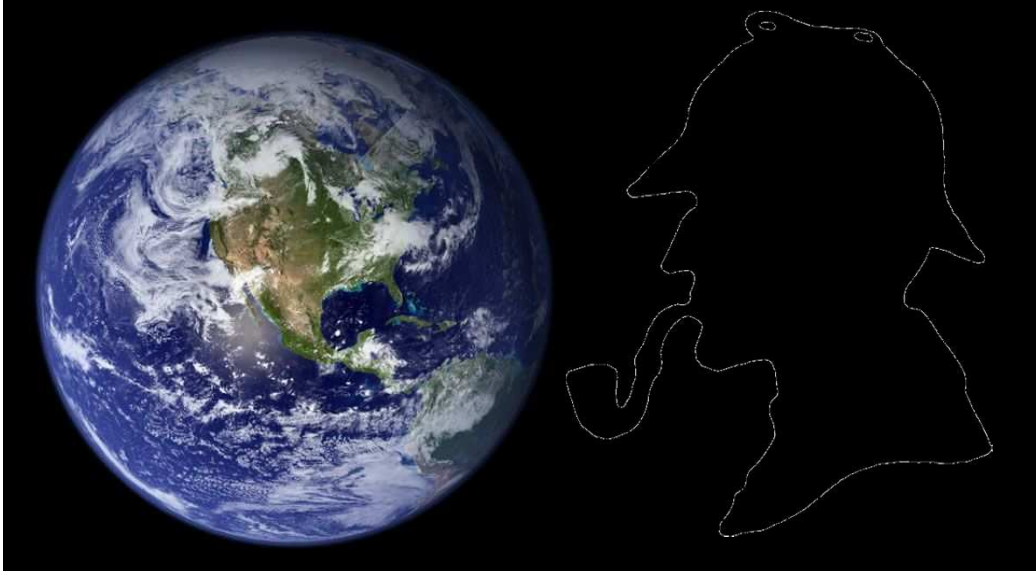


O'Neill et al (2009)



Bloom's Taxonomy of learning. Adapted from: Bloom, B.S. (Ed.) (1956) Taxonomy of educational objectives: The classification of educational goals. Handbook I, cognitive domain. New York ; Toronto: Longmans, Green.



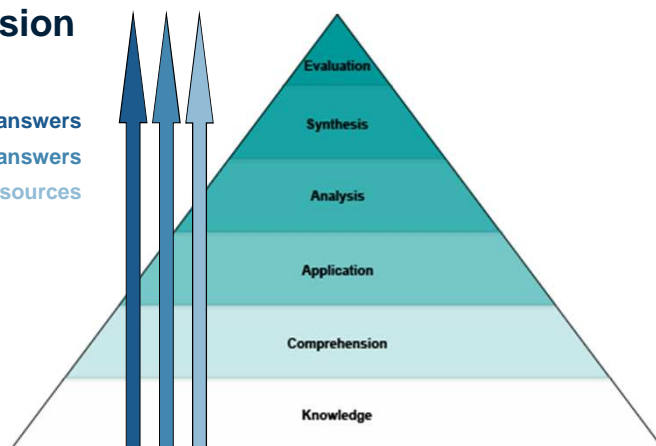




- We are going to watch a short video of “Sherlock”
- What you see and what you hear are equally important
- Try to imagine what it feels like to be the central character
- Use what you see, hear and know about the character to answer the questions that follow
- Use your imagination

- **Group discussion**

Number of answers
Complexity of answers
Number of sources



Bloom's Taxonomy of learning. Adapted from: Bloom, B.S. (Ed.) (1956)
Taxonomy of educational objectives: The classification of educational goals.
Handbook I, cognitive domain. New York ; Toronto: Longmans, Green.

- **Student evaluation**

- Qualitative

- Diaries
- Interviews

"I have a well known reputation for not actually reading the question and instead answering either the question that *I* think has been asked and answering an entirely different question whatsoever, or answering what I want to answer which isn't the actual question... Had I actually been introduced to the taxonomy concept earlier, I think a lot of misunderstandings and misanswered questions in my school and academic life could actually have been avoided!"

"Bloom's taxonomy was also demonstrated via a video of Sherlock in which the class were to listen and see what was played on the screen. From this clip we had constructed a series of explanations by answering certain questions about the clip. The idea of Bloom's taxonomy was then broken down and I also believed that Blooms taxonomy can be used in all aspects of life. One moral i grasped from Bloom's taxonomy was that questions based on knowledge can only lead to one answer. But with Analysis, Evaluation.. etc, many answers can be constructed by the same source (the clip of Sherlock.)"

- **Student evaluation**

- Qualitative

- Diaries

- Interviews

“I think having the knowledge from the taxonomy etc today will help my thinking in further sessions and also in general.”

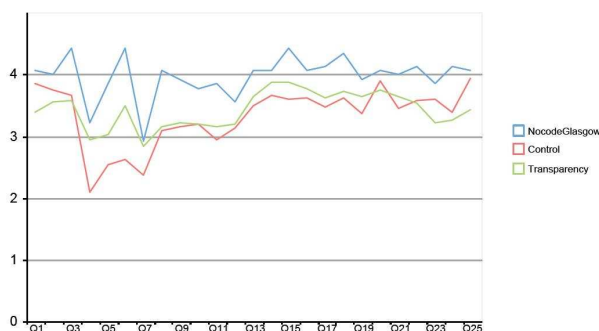
“After more self-evaluation we learnt about Bloom's taxonomy. This was the most interesting part of the day for me as I quickly picked up the concept although I think it could be quite hard to put into practice. Using a video of Sherlock and answering question which either had a correct answer, were worked out from basic clues or guesswork from previous knowledge. This helped with the way I will now think of all questions I come across and I can apply it to any situation. I was really happy I took away something so useful from the first day. I am really looking forward to what tomorrow brings”

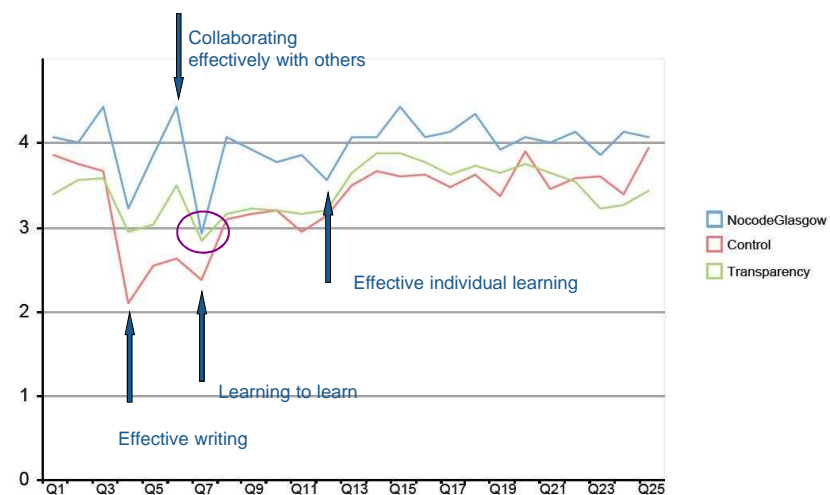
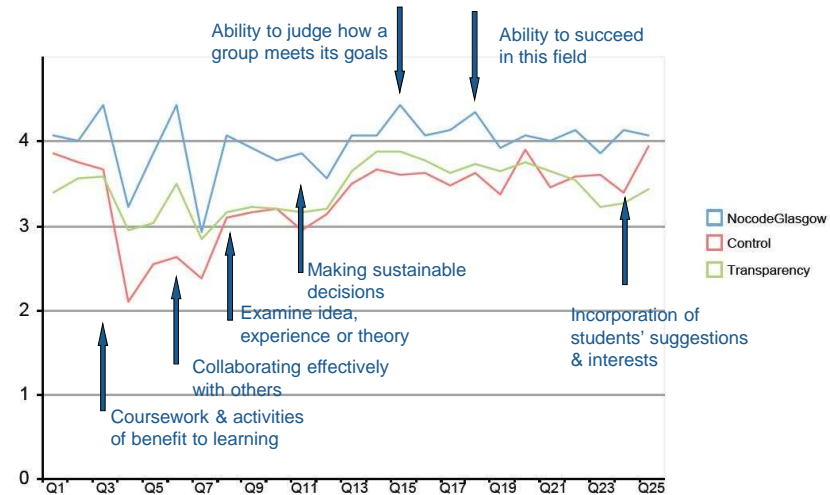
- **Mary-Ann Winklemes**

- International

- Students at any level

- Classroom intervention





- **Students gain**
 - Effective collaboration
 - Critical thinking
 - Effective judgements
 - Confidence in success
 - Active role in the course
- **Liminality**
 - Learning to learn
 - Moving from unconscious ignorance to conscious ignorance
 - Opportunity for
 - Creativity
 - Learning

- Bloom, B. S. (ed) (1956) "Taxonomy of educational objectives: The classification of educational goals" Handbook 1, Cognitive Domain. New York; Toronto: Longmans, Green. Moon, J.
- Priest, A. (2009) "Critical Thinking, Communicating, and Valuing in a Global Society" Improving University Teaching, 34th International Conference, Navigating Innovations in Teaching & Learning, Simon Fraser University, Burnaby Campus, Canada, July 14-17th.
- O'Neill, A., Birol, G., Pollock, C. & Kelly, T. (2009) "Investigating Consistency Between the Teaching and Assessment of Learning Outcomes in a Multi-Session Course" Improving University Teaching, 34th International Conference, Navigating Innovations in Teaching & Learning, Simon Fraser University, Burnaby Campus, Canada, July 14-17th.
- Tierney, A., Tatner, M. & Butler, E. (2010) "Online Reflective Diaries: Using Technology to Strengthen the Learning Experience" Proceedings, 35th Improving University Teaching International Conference: Using Scholarship to Enhance Learning Resources, Washington D.C.

Thank you to my colleague Eamonn Butler, and to the students who participate in Business & Bioscience.