Creativity and Character Education

Number Expansion

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Group Presentation

■ Random selection
http://www.random.org/sequences/

Student Teaching

■ Official document about your student teaching (교육실습확인서)
■ Observe video clips of your missed classes and submit your signed document showing an indication of your observation

Storytelling and creativity

- History of math: how mathematical concepts have been developed? How current mathematical structures have been appeared? What is an issue in the history of math?
- Combinations of historical and psychological perspectives

    (e.g., Gagne's inductive leap vs. qualitatively special)
- Stories about applications of math to real-life contexts (e.g., modeling process)
- Structural stories by using several unit plans through a simultaneous use of both history of math and its applications to real-life contexts

Highly engaged class

- **Student engagement** is an important aspect of effective teaching.
- How to create a classroom environment for student engagement?
- How to plan and conduct specific strategies for student engagement?
- **Information visualization** in sensory memory

When, where, and how did the square root of 2 start?

Story about Hippasus
(EBS, Civilization and Mathematics: 2. Elements)

How to find the value of π?
How can π be applied to real-life contexts?

Story about π
(EBS, MATHEMATICA 1: Endless mystery π 2)

How can binary notation be used for computers?

Story about binary notation
(EBS, MATHEMATICA 2: 0 and 1, the world of binary [notation])

How can integer factorization and prime numbers be used for real-life contexts?

Story about prime numbers
(EBS, MATHEMATICA 3: Only, one, prime number)

Information Visualization

- **Real-life story** related to a mathematical concept
- Historical **developments** of a mathematical concept and its applications to real-life contexts (e.g., π)
- **Usefulness** of a mathematical concept in real-life contexts
- The need for the **meaning** of a mathematical process in real-life contexts (e.g., integer factorization and prime number)