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# The Role of Online Asynchronous Discussion Boards in Developing Reflective Thought.

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# Context

- Existing module: Creativity, ICT and Learning
- Interest and emerging pedagogies relating to virtual learning environments (VLE)
- Gilly Salmon – E-tivities
- Charlotte Gunawardena - co-construction of knowledge
- Decision to explore use of VLE as a method of collaborative, online assessment
- Developed assessment based on online discussion boards

# Affordances of Discussion Boards

Schumm, Webb, Turek, Jones, and Ballard (2006)

- Classroom discussions can be hindered by time limitations, number of students, domination by certain students.
- Permanent nature of online, written communication provides potential for a systematic approach to constructing meaning.
- Learners can be given the opportunity to:
  - revise and refine their comments and ideas
  - plan and structure responses
  - facilitate the discourse towards a clear goal.

# Theoretical framework

## Dewey's Model of Reflective Learning

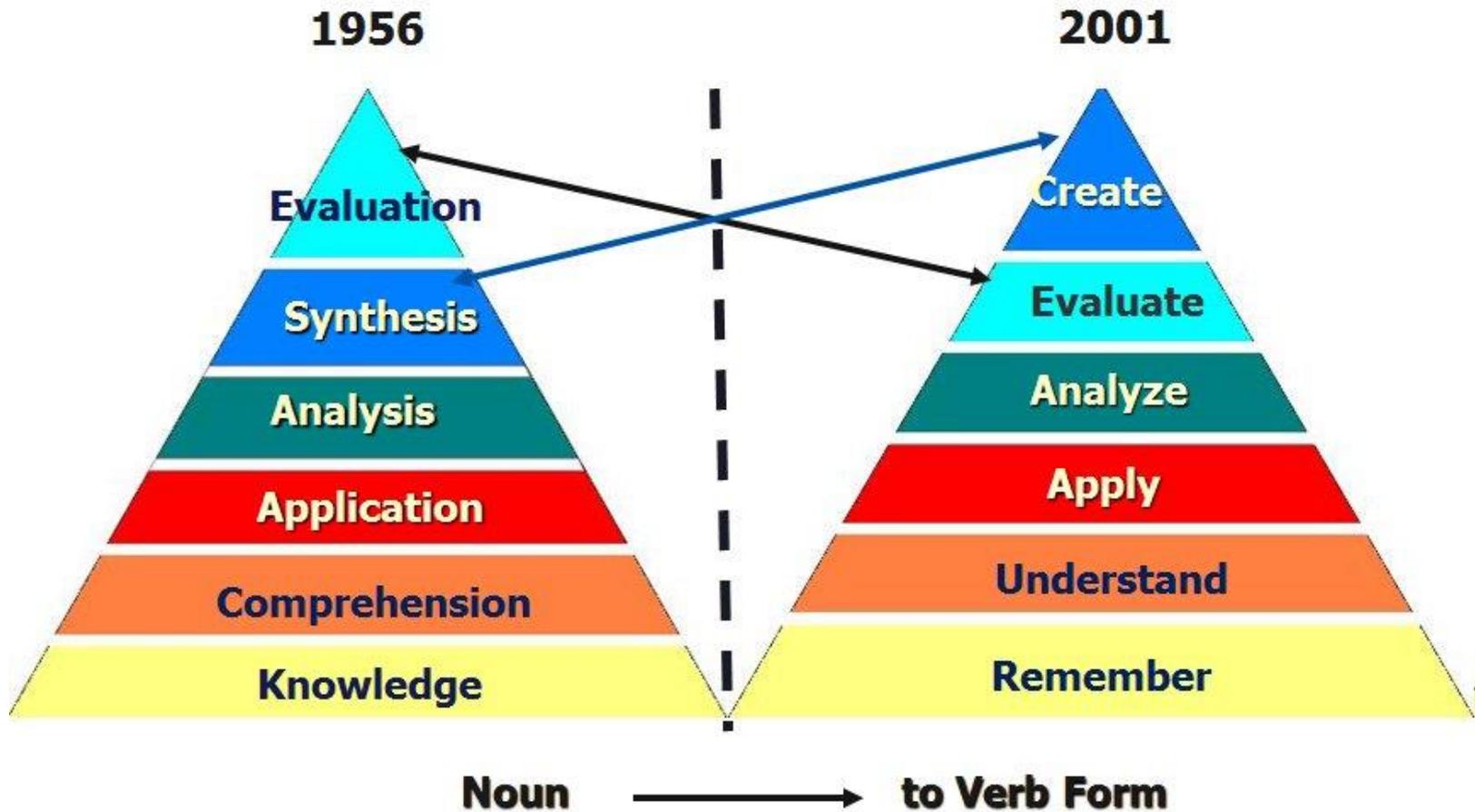
### Cognition

- Thought:
  - Attempts to make sense of the world
  - Orders experiences to make meaning
  - Without experience thought is fragmented
- Interaction:
  - Interaction destroys meaning, continuity fixes meaning.
  - Learning is effective synthesis of interaction and continuity.
  - Requires aspects of metacognition and higher order thinking.

### Experience

- Thought:
  - We use our understanding to impose consistency upon our interactions;
  - Understanding can only be based upon what we have already experienced.
- Interaction:
  - Challenges the world of experiences
  - Disrupts what we already know, from previous experience

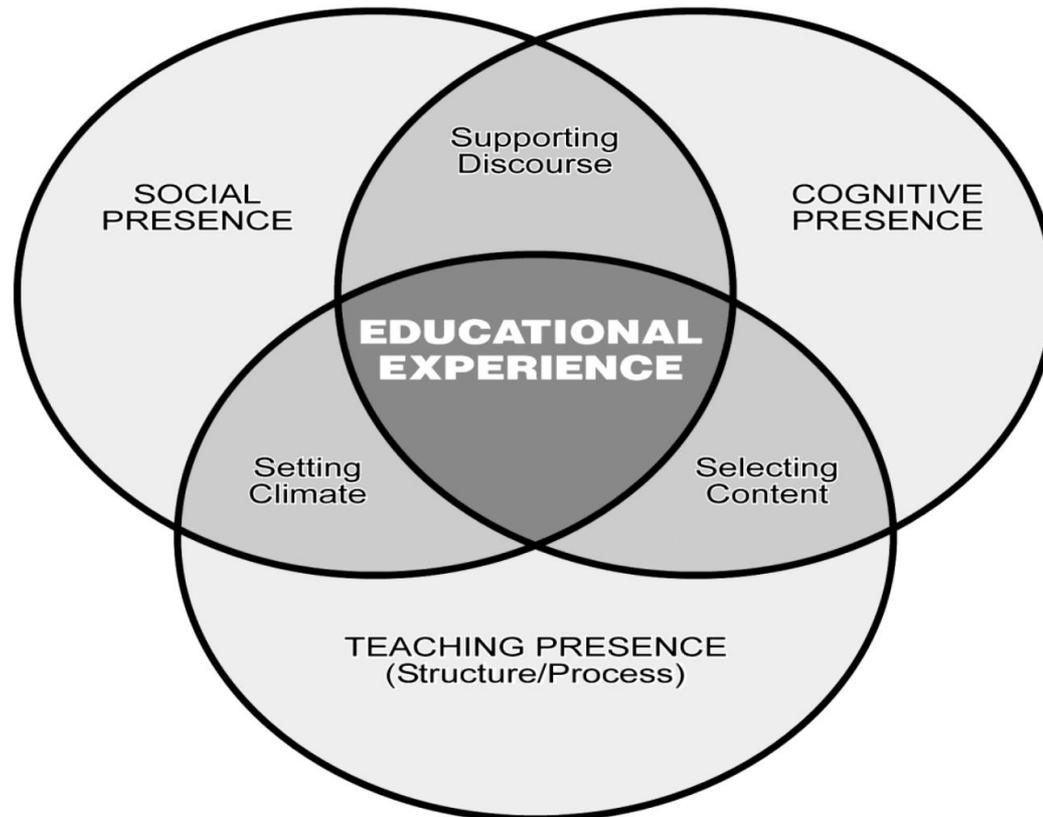
# Higher Order Thinking: A Two Dimensional Taxonomy



(Anderson & Krathwohl, 2001)

# The Importance of Interaction

## Community of Inquiry



**Communication Medium**

# Intrinsic/Extrinsic Motivation

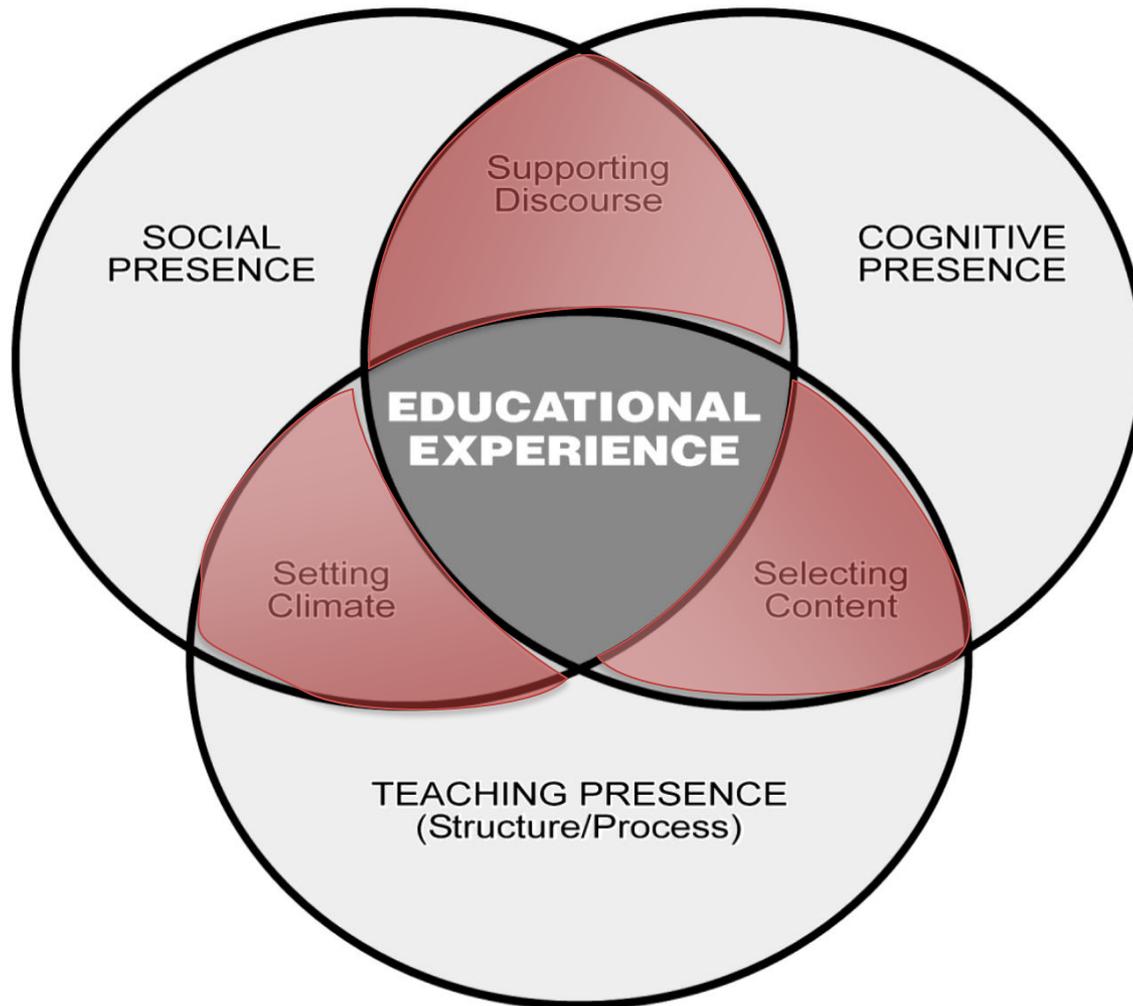
- Lin & Overbaugh (2007):
  - most students may not be capable of self-regulating their learning in online environments.
  - Highlights need for regulation, especially when online discussions may lack guidelines and/or requirements.

# Methodology

- Analysis of 20 participants' contributions to a discussion about their experiences of using asynchronous discussion boards.
- Thematic approach (coding).
- Drawing upon notion of 'community of enquiry' (D. Garrison) and distributed cognition (Salomon).

# Analytical Framework: Discourse, Climate, Content

## Community of Inquiry



**Communication Medium**

Garrison D. and Garrison D. (2003)

# Findings

- Evidence that online discussion can benefit higher order thinking:
  - Potential for new discourses and new identities
  - Online discussion can generate a more evaluative cognitive framing
- The role of the teacher is still vital for developing a value based cognitive framing:
  - Interrupted interactions cause frustration
  - Lack of clear protocols creates uncertainty
  - Conceptualisation of audience is important: group size affects intrinsic motivation
  - Need to ensure selected content is connected to other aspects of learning

# Potential for New Discourses and Adjusted Interactions

*“I, personally, have noted a change in the way people act and discuss topics, not just on the boards, but also in subsequent face-to-face contact, which then appears to change social interactions. Could it be suggested that using online discussion boards does not only create new digital identities, but also affects interactions and identity in the 'Real World'?”*

# Interaction and the Reflective Process

*“I have particularly enjoyed discovering other people’s views and opinions about a subject, which, in turn, has challenged my own thoughts and knowledge regarding particular topics.”*

# Frustration of Social-Cognitive Interruption

*“Communicating through writing alone, however, can lead to problems too. I think that writing alone can lead to lack of a coherent discussion as the process of 'logging on' to the discussion board every time you wish to post something, or check what others have read, is time consuming. Also, the time it takes for people to reply to posts. In a discussion, in person, when someone presents an argument or point, then the recipient or recipients can give an immediate response. This is unlikely to happen in a discussion forum.”*

# Clarity of Protocols

*“I believe face-to-face contact is more genuine as an experience. In essence, I believe discussions and the construction of knowledge is an emotive process, being physically tangible and emotionally situated. This is difficult to achieve in front of a screen, without meaning being misconstrued.”*

# Group Size and Intrinsic Motivation

- *“I personally feel that being part of a bigger, whole class, discussion had a better feel of community than the small group one took part in before.”*
- *‘I am in line with your thoughts on the idea that a larger group for discussion, like this one, has had a positive effect on my sense of belonging to a community... it allows you to take more pride in your work knowing that people will read and respond to it, as well as develop to it, which, in turn, helps you to develop your own ideas even further.’*
- *‘I also feel that because, in this ‘online community’, we expect others to react and respond to our work, that in turn serves an almost subconscious second purpose, which allows us to make improvements in our own work and learning.’*

# Connecting Content

*“Like all types of teaching, online forums have their place within education. If they are connected to seminars or lectures, deeper knowledge can be expressed.... This allows one to question themselves to form a deeper understanding around topics. One has time to discover about the chosen topic by reading various materials to support their views and understanding.”*

# Conclusion

- Evidence that online interactions affords higher order thinking skills and, thus, can have a positive impact on cognition.
- The role of the teacher is still important in realising these affordances i.e. by managing group size, establishing protocols and connecting content.

# Further Reading

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