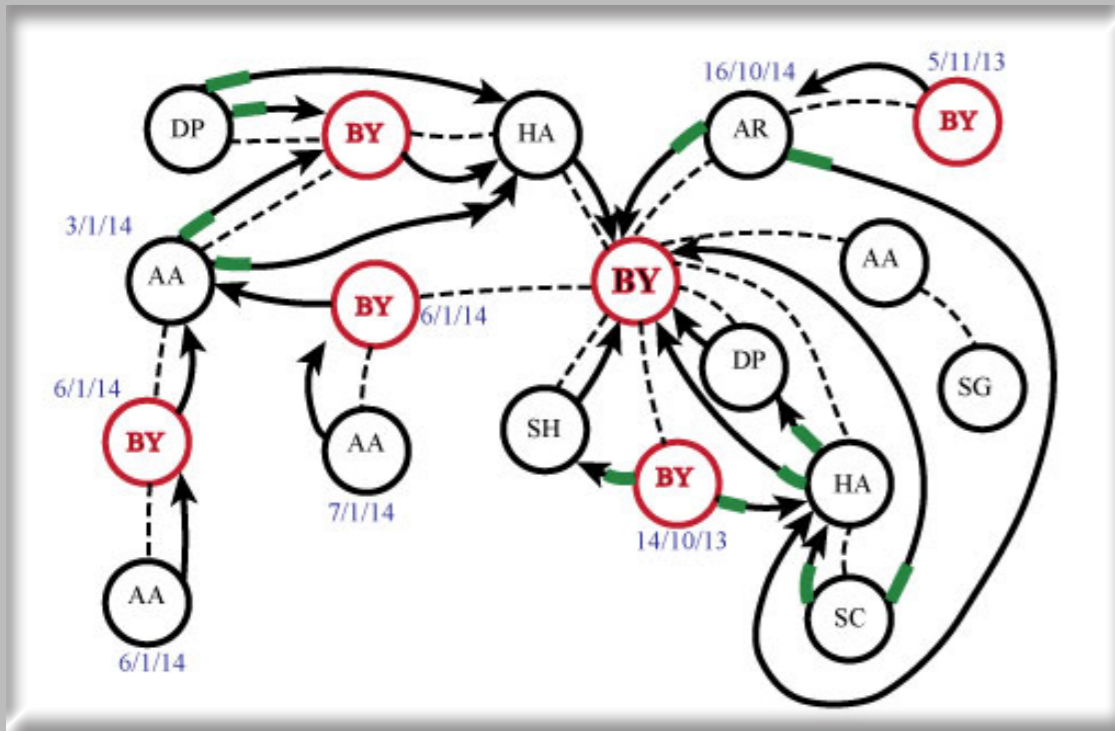
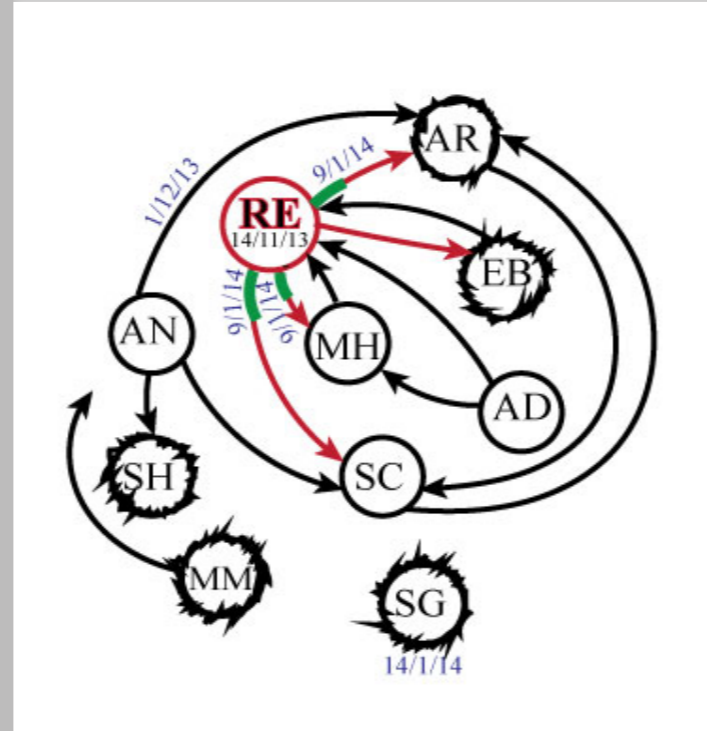


# Categorising asynchronous discussion threads: improving the quality of student learning

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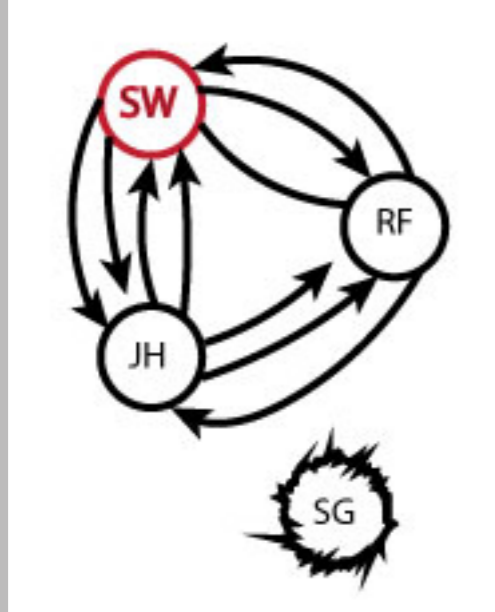


Multiple contributions in timely manner



Minimal contribution

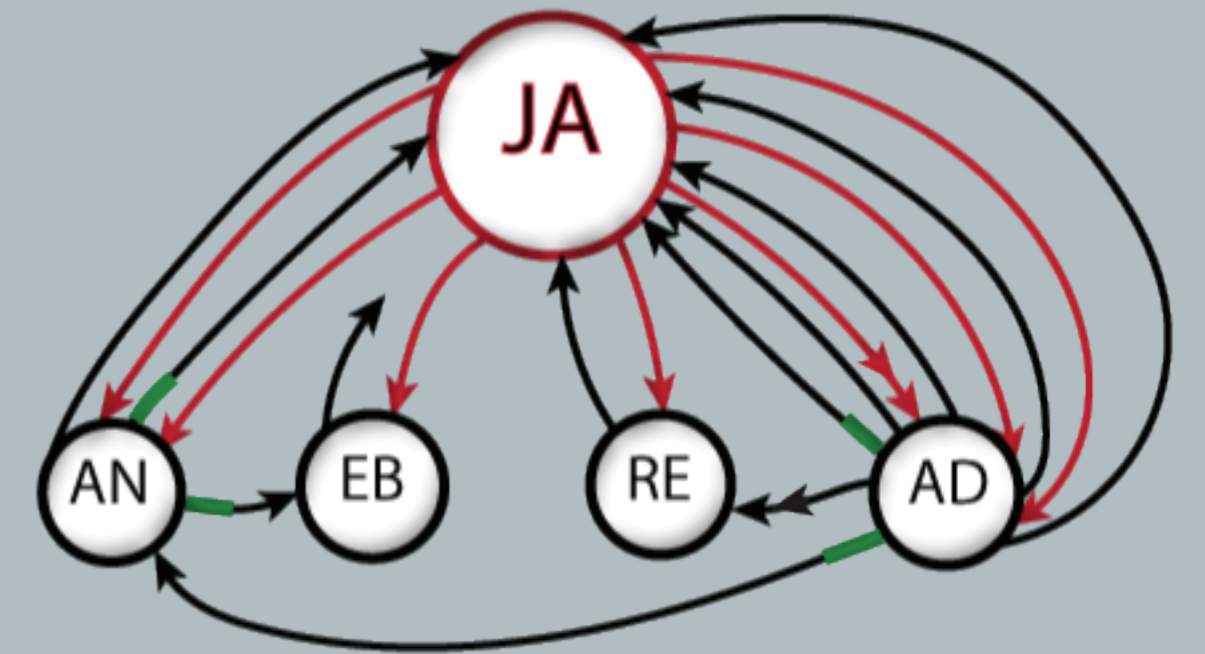
Symbol	Function
(AB)	Red circles and text identify the thread facilitator
	Green highlighting identify message posters who refer to more than one recipient
	Touching arrows indicate person or post that is being responded to
	Arrows that don't touch indicate probable recipient
	Rough edges indicate the post is not specifically responding to another message or poster
	Dotted lines show proximity of posted messages in linear view diagrams



Several participants make equal contributions in cohesive group

Type of discussion thread
Passive facilitator
Active facilitator
Dominant facilitator
Multiple facilitators
Balanced discussion
Cliqued discussion
Formulaic discussion
Uninvolved discussion
Direct response discussion
Evolving discussion
Self referencing
Unresponsive star
No names discussion
Multiple sub-threads
Complex models

## The dominant facilitator



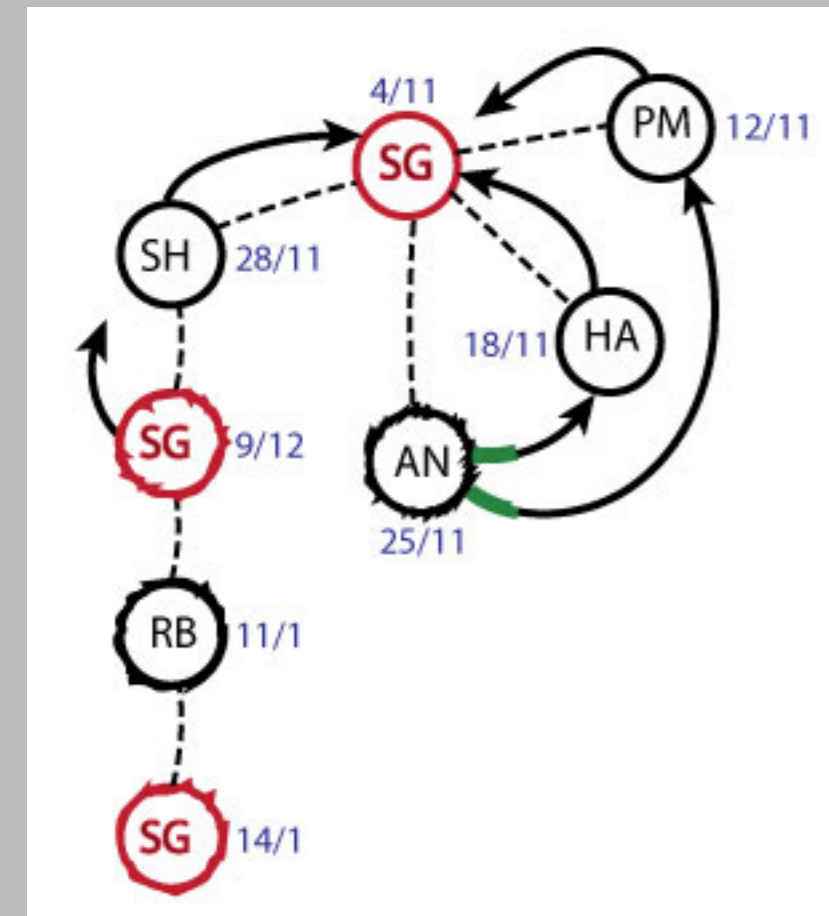
JA	AN	EB	RE	AD
Number of contributions				
8	2	1	1	5
Number of times clearly identified				
8	3	2	3	3
Number of times refers to someone				
7	3	*	1	7

Forum: Computer science  
Thread: Which programming languages should be taught in secondary schools and why?

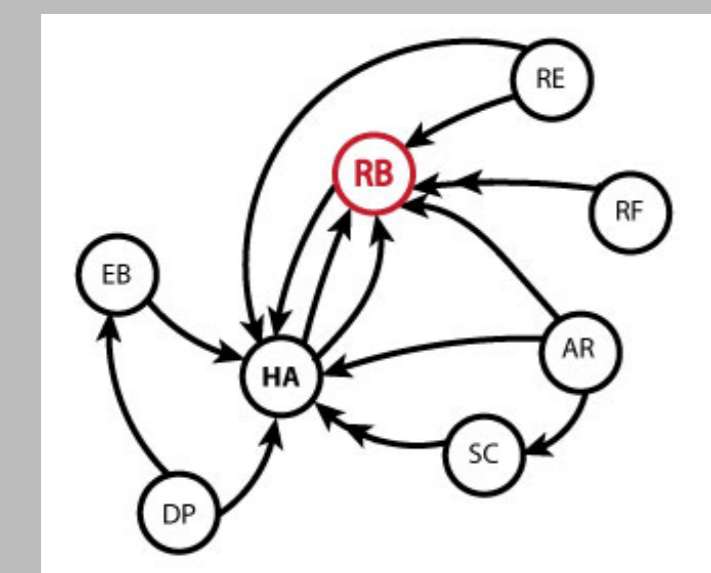
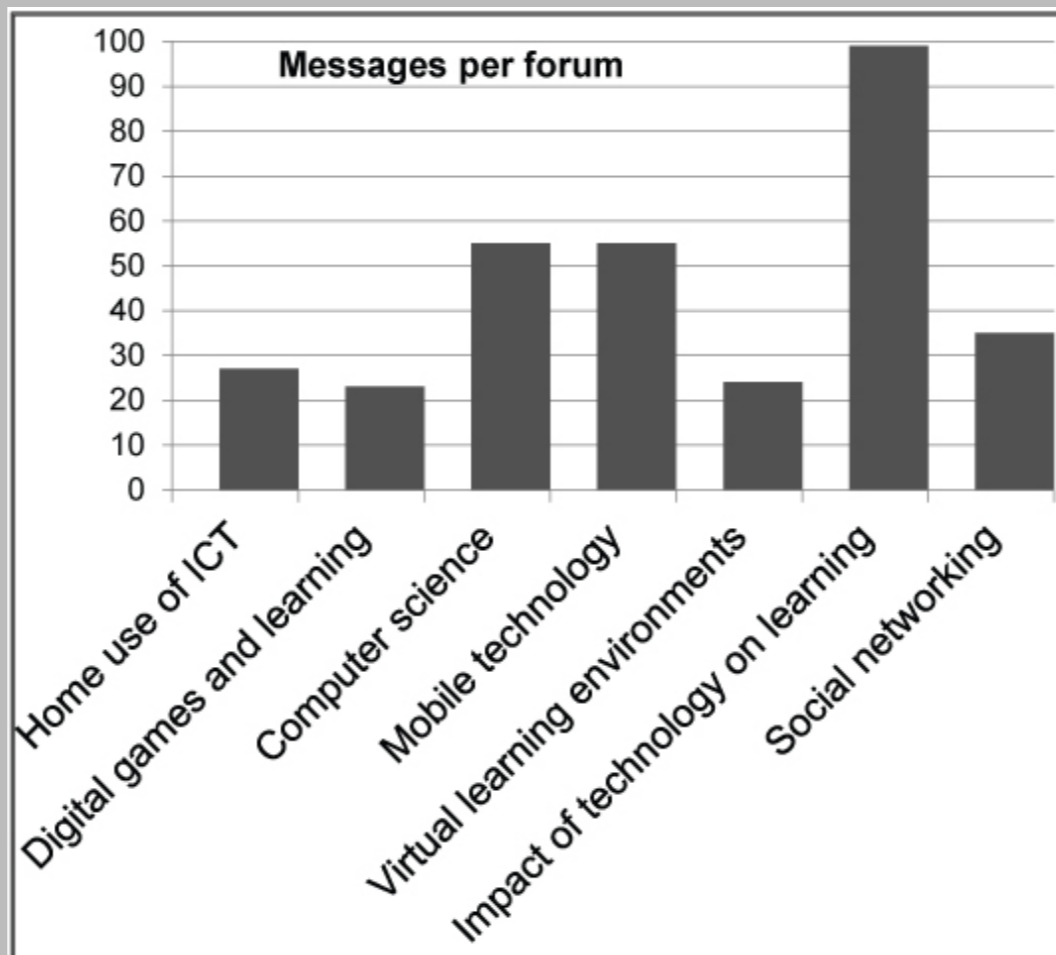
- Very few participants (5) though with multiple messages exchanged between facilitator and separate message posters
- Facilitator responded to every message
- All messages were directed at the facilitator
- 11 of the 17 messages contained at least one reference or hyperlink - most contained several
- Analysis of the content provides evidence that participants read at least some of the cited texts
- Average message length: 265 words; range 156-410 words
- 5 of the 6 messages that contained at least one question were asked by the facilitator

S1: "[As I posted the first message and therefore had the facilitator role], I believe it was my responsibility to respond to each post and assist with moving the discussion forward."

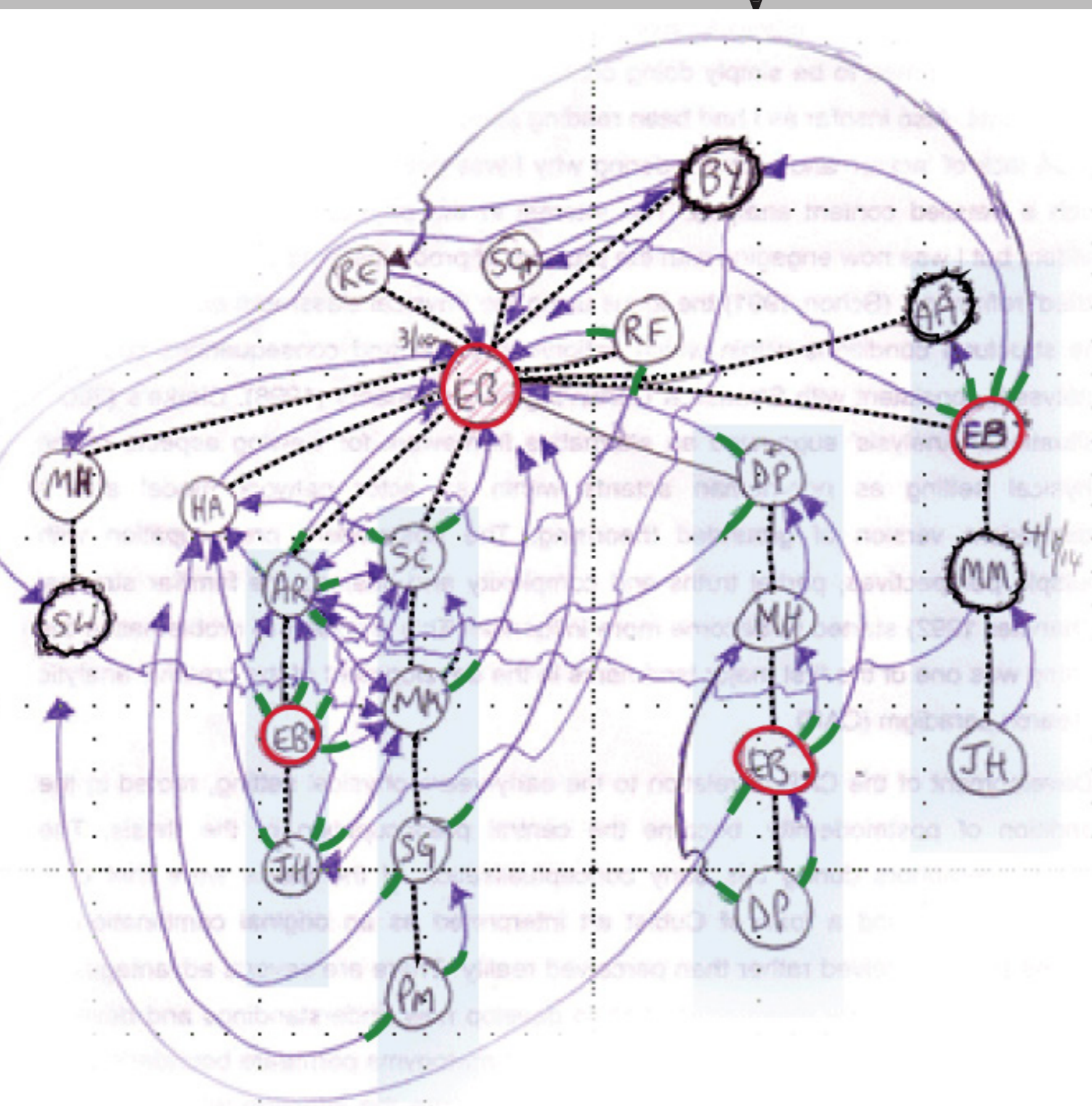
S2: "On the whole for every participant commenting on this thread I made sure I replied back and tried to include a question for them to think about and research. This way I hoped they would return with their viewpoint to carry on the discussion."



Message poster responds to the content of their own messages



Clearly identified many times but doesn't respond



### Evaluating contributions to an asynchronous discussion

- Churches (2010)
- Bloom's Digital Taxonomy rubric
  - reply construction
  - understanding
  - evaluation
- Chan, Hew & Cheung (2009)
- Peer facilitation techniques
  - pointing
  - questioning
  - resolving
  - summarising
- Golanics & Nussbaum (2007)
- Enhancing online discussion
  - collaborative argumentation
  - adversarial argumentation
  - exploratory discourse
- Jimoyiannis & Angelina (2012)
- Social network analysis
  - cohesion
  - role analysis
  - centrality

### Previous research:

Barnett, A (2011) Blended learning: Evaluation of the WebCT Blackboard Virtual Learning Environment in relation to asynchronous discussion and student assignments. Worcester Journal of Learning and Teaching, (6) 2-12 (Also online: <http://www.worc.ac.uk/adpu/1124.htm>)