Conversation Analysis of Problem-Solving Methods in Chat
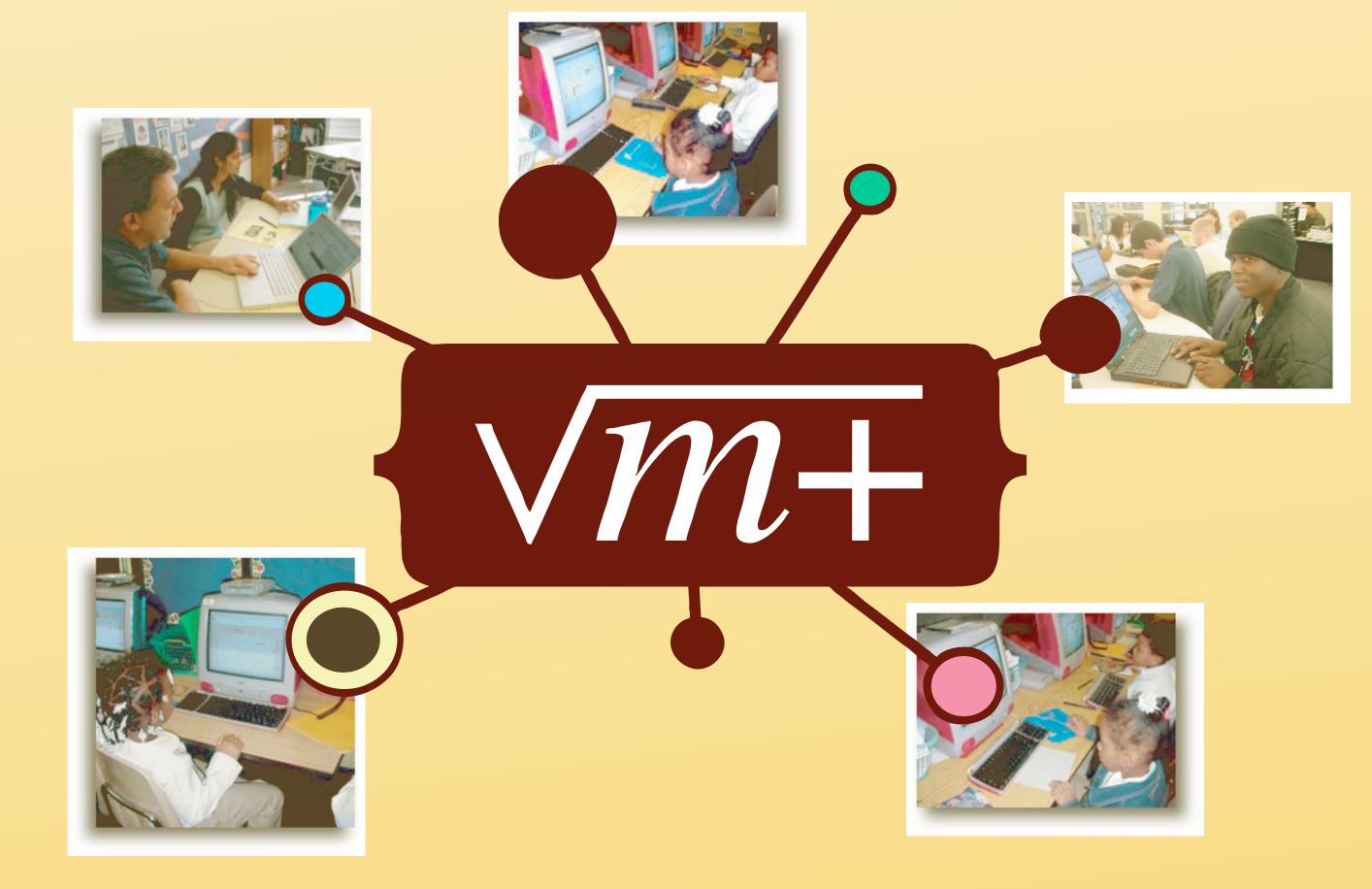
Is Chatting Online Worthwhile?

The Virtual Math Teams (VMT) project is an NSF-funded research program for investigating the innovative use of online collaborative environments -- including chat -- to support effective K-12 mathematics learning. Conversation Analysis (CA) is one of the many tools we use to identify and investigate how students collaboratively solve math problems when using computer chat programs such as AOL Instant Messenger and others.

How is CA Different From Other Methods of Analysis?

Using CA, we treat problem-solving as an interactional achievement of participation rather than as an internal and private process of the individual. We examine chat logs and seek to describe, in detail, the publicly available and observable procedures by which these problem-solving collaborations are achieved. In these online, problem-solving chats, the production and distribution of text messages and, on occasion, of other artifacts such as drawings, diagrams, etc., constitute the principal resources for sense-making for both participants and researchers.

1.	Mod:	If two equilateral triangles have edgelengths of 9 cubits and …
2.	ALR :	hmmm
3.	ALR :	interesting
4.	Mod :	If you create a picture that you would like to share…
5.	PIN :	very
6.	ALR :	I think we can crack it, though
7.	ALR :	**begins to scribble on paper**
8.	ALR :	or should I not do that?
9.	PIN :	doesnt matter
10.	ALR :	got it
11.	ALR :	**proceeds with scribbling..**
12.	ALR :	Okay, I think we should start with the formula for the area of a triangle
13.	SUP :	ok
14.	ALR :	A = 1/2bh
15.	ALR :	I believe
16.	PIN:	yes
17.	PIN :	i concue
18.	PIN :	concur*
19.	ALR :	then find the area of each triangle
20.	ALR:	oh, wait
21.	SUP :	the base and heigth are 9 and 12 right?
22.	ALR :	no
23.	SUP :	o
24.	ALR :	that's two separate triangles
25.	SUP :	ooo
26.	SUP :	ok
27.	ALR :	right
28.	ALR:	i think we have to figure out the height by ourselves
29.	ALR:	if possible
30.	PIN :	i know how

Is Chat Like Conversation?

Groups of people develop different methods for interacting using textually mediated technologies like AOL Instant Messenger in order to acomplish the same results as in face-to-face communication.

What Have We Found So Far?

As a text-based medium for conducting interaction, chat offers different affordances for problem-solving. In analyzing chats, we have begun to identify and describe:

- How multiple threading of chat interaction is used as a resource in problem-solving,
- Ways that participants put forward and take up proposed problem-solving strategies,
- How understanding and misunderstandings are done as interactional achievements in chat,
- Different ways that collaboration and cooperation are organized as participation frameworks.

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