Philadelphia, March 28, 2004

Dear Collaborator,

We are planning to bring together an exceptional group of researchers for a CSCL workshop this summer dealing with online collaborative math problem solving in Philadelphia, June 9-11. We are very excited to bring together this group of important researchers; we think this will be a very rich and enjoyable experience for all who participate — as well as a crucial step in our research project.

You are one of the researchers we are hoping will be able to participate because of your expertise in this area. Please let us know soon whether coming to this workshop is a possibility for you or not, to help us with our planning.

But first, some background:

- A year ago we submitted proposals to NSF to fund a research project on collaborative math problem solving at the Math Forum website. The project proposal listed a number of collaborators — primarily CSCL researchers in Europe and the US — who would help to guide the research. This list has grown slightly since then.

- Over the Summer, the project was funded for five years. We secured IRB approval for working with human subjects in local schools and online.

- In the Fall, we started up the Virtual Math Teams (VMT) Project, hiring three research assistants and starting weekly meetings with several Math Forum staff. We videotaped a session of face-to-face collaborative math problem solving in a Philadelphia middle school math class to provide a quick baseline experience.

- In the Winter, we collected a considerable amount of data on face-to-face and online math problem solving in small groups by involving about 40 undergraduate and graduate students as both subjects and researchers. We also started up our proposed service at the Math Forum website on a small, experimental scale. Since it is a collaborative version of the popular PoW (Problem of the Week) service, we call it Pow-Wow!

- In the Spring, we will undertake quantitative analysis of the data we have already collected. We now have the project's first visiting researcher here leading up this quantitative analysis. We will also continue to experiment in various ways with the Pow-Wow! service.

- In the coming Summer, we want to expand our VMT project team to include people like you collaborating at a distance. With your advice and assistance, we want to undertake qualitative analysis of our data, investigate the theory of collaborative math problem solving and explore software development to support the service.

The VMT Project is off to a good start and seems to hold forth an exciting potential. Of course, we are already confronting problems and hard questions:

- How to attract, motivate and group students into effective online math problem solving teams; how to encourage students to return and to bring friends, so the collaborative community grows and matures.

- How to design math problems that will work well in the given situation, will foster productive interaction, fruitful discourse, group understanding and deep individual math insight.

- How to design software and pedagogical infrastructures to support fluid collaboration and math exploration.

These are complex problems and we need to bring the best thinking in our fields to bear on them. Therefore, we feel it is time to involve our collaborators. We envision the workshop in June as an opportunity to spend a day on each of the preceding problems, collaboratively brainstorming ways to approach them in the coming years. This will form a basis for distance collaboration the rest of the year. But more than that, we see the workshop as an opportunity for us all to get to know each other better. We want you to briefly and informally share what you are working on and your interests and ideas. We want you to meet the other collaborators as well as the local VMT team, in a pleasant, relaxed social atmosphere. We anticipate getting together this way each year, building our own collaborative community in parallel with that of the math students.

We hope you can personally attend the workshop. We think this will provide a solid foundation for your involvement in the VMT Project — which might later include your students or colleagues interacting with or even visiting the Project. Our funding will pay for all your expenses as well as provide a modest honorarium for your participation. Please plan to arrive in Philadelphia on June 8th and depart on the 12th. We will send you further details once we know how many people can attend.

We have attached a list of the workshop invitees with brief bios. The bios were made up rather haphazardly, so please send us a version of your bio that you would prefer we used in the future.

We certainly hope you can join us at the workshop and look forward to seeing you there. We look forward to hearing from you,

Gerry Stahl, Stephen Weimar, Wesley Shumar