Speaking is a fundamental method to communicate with others. To get an opportunity to learn and practice effective speaking in mathematics is valuable experience for the students of mathematics licensure major. Unfortunately, many mathematics courses do not put emphasis on speaking. Mathematics has not been developed alone. A mathematician has been affected from the cultural force surrounding the community that the mathematician lives, and vice versa. It is desirable to research this matter, and then communicate with others in the mathematics classroom.

A mathematics course is going usually in lecture based format. It is a typical one-way communication. Efficient speaking should be considered as a fundamental form for oral communication. Giving a speech or an oral presentation is suggested as one of alternative type of two-way communication between the speaker and the audience. MAT 481: History of Mathematics is a good place where we try to concrete this idea. Different from other mathematics courses, MAT 481 not only investigates the mathematical achievement by intellectual humans but it also looks up the relation between mathematics and culture in the past and present. The key question is: How does culture affect mathematics and how does mathematics affect culture?

In general, when a presenter gives speech, he or she needs to control speech anxiety and they need to utilize the techniques of good speaking in regards to voice, pronunciation, volume, gestures, eye contact, and proper attire. The University Speaking Center offers a basic and general guideline to become a good presenter. It is worth citing here; but, short tips are listed here: For details, visit http://www.usm.edu/speakingcenter/handout/general_tips_for_speaking.pdf. Besides, you are linked to many useful resources in the center.

- Start planning your presentation when you begin writing the paper.
- Create a speaking outline that is different than your writing outline.
- Translate for your audience.

The basics of speaking are, for the most part, consistent across disciplines. Knowing the expectations of a discipline is an important part of adapting to your audience, however. The papers in the “Speaking, in my opinion…” series do not represent an official statement from the department. They do, however, give you an introduction to different faculty opinions on effective speaking.
• Use support material to keep your audience interested.
• Start and end with a bang.
• Don’t use a visual aid (PowerPoint) unless you need it.
• Do not read your speech. Instead, sketch out an outline for the speech and talk to your audience based on that outline.
• Practice your speech in front of someone else.
• Time your presentation while practicing.
• Speak up! And breathe.
• Record yourself when practicing.
• Take note of your appearance on the day of the presentation.
• Deal with nervousness.