

Topic Mining: assessing authentic teaching language while finding a unprepared test topic appropriate for both candidate and raters

Problem:

In ITA performance tests, raters are challenged to find the most valid procedure to assess the true depth and scope of a candidate's teaching fluency. In the early days of testing at Carnegie Mellon (began in 1986) we assigned topics in advance. However, feedback from departments and course evaluations indicated that some of those ITAs should not have passed. We came to believe pre-assigned topics too often led to overly prepared, and possibly memorized, language and did not reveal the authentic language TAs need to use on a daily basis. While TAs prepare parts of their lessons in advance, the real test of their language comes when they must respond to the unexpected questions and comments from their students.

In an attempt to move to unprepared presentations, we tried assigning topics from a list of topics collected for each department, but again found drawbacks: e.g., topics were often overly simple or too complex, candidates were not familiar with topics, nervousness/stage-fright often increased, negatively affecting performance.

A new approach

About ten years ago we began to experiment with different ways of finding a topic and, through trial and error, developed a testing procedure we call "topic mining". Topic mining makes finding a topic part of the general conversation at the start of the test, leading raters to a topic from the candidate's field that he/she can explain without preparation. By tapping into unprepared language and using a topic that the student knows well, the test can more accurately assess a student's authentic teaching language.

Benefits of this method

Topic mining provides a more authentic language sample and filters out assessments based on a student's ability to memorize or willingness to overly prepare. In addition, the mining process itself reveals key aspects of the speaker's fluency often hidden in prepared presentations.

The steps of “topic mining”

Through conversation we discover a student’s area of interest and uncover a topic appropriate for the audience (in this case, language teachers who are not experts in the student’s field) and which the student can explain without preparation.

Test begins with candidate and four or five ITA test raters seated at a table:

1. Start with some general conversation, e.g., name, country, academic department, advisor, time in US, etc.
2. Clarify student’s specific area of interest.
3. Zoom in on student’s particular areas of interest/ research; see if this yields a topic (may or may not).
 - a. *You said you are working “in Polymers”, but what specific research question are you exploring? or Tell us more about your research.*
4. If no topic yet, continue conversation. Look for clues, e.g., student mentions a new/interesting term, concept, device, etc., suggest this as the topic.
 - a. *You mentioned X; this is something new for us. Could you explain X to us as the topic for your test?, or What class will you TA? What are some of the issues covered in that class?*
Note: several follow-up questions may be needed to get to an appropriate topic.
5. Watch for a “break-through” moment when a likely topic is revealed (note: raters may need to “process” topic before it can be used).
6. Explain that a topic can be refused before asking candidate to accept proposed topic (this is **crucial**; students should never feel they were forced to accept a topic they did not know well).

Before we go on, let me review the way this test works. We’ll give you a topic from your field and ask you to teach it to us. This is not a test of knowledge, so if the topic is not a good topic for you, tell us. We can find another topic. After we get the topic, we will then have you stand at the board and explain it to us
7. Be aware that students may try to introduce a prepared topic (e.g., *I want to give you an overview of my research*); do not allow this to happen.