The direct advantages of using dependency treebanking in the Latin and Greek classrooms are becoming more familiar to the Classics community at large. Among these benefits is the way in which treebanking encourages the students to become mindful of every syntactic relationship in a given sentence. In addition, treebanking constitutes an crucial element of a rapidly developing field of research in Latin and Greek, and treebanking in introductory and intermediate instruction offers an entrepôt through which undergraduates with limited language training can contribute to the advance of philology in a meaningful way. It is against this background that this presentation will shift the focus of the discussion to the more indirect advantages of classroom treebanking, in particular, the ways in which the data generated by the treebanking system can be made to serve the interests of student and teacher.

I have been treebanking in my Latin classes at various levels for more than five years using the resources of the Alpheios Project, the Arethusa Annotation Framework, the Perseids Project, and the Perseus Digital Library. As a result, I have available a great deal of hard data about student performance. The data can reach a fine degree of granularity. For example, Arethusa automatically compares student work to a “gold standard” which I provide for every homework assignment and generates an error matrix for each word of each sentence for each student. Student work is evaluated under four rubrics, *lemma*, *postag*, *relation* and *head*. The first two most directly reflect the student’s control of vocabulary and word forms (*postag* refers to part of speech and associated morphology), *head* designates the item upon which the focus word depends, while *relation* is the grammatical label of a given dependency (*e.g*., indirect object, or absolute clause). A typical semester’s treebanking homework might include 45 assignments of three sentences per assignment, each sentence averaging c. 10 words. Thus, the system produces c. 5400 data points per student. For a single class of 25 students, a computational study of a single semester’s treebanking results would be based on a set of c.135,000 items.