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USE OF THE DYADIC ALTERNATIVE TO MAKE LEARNING MORE ACTIVE, COLLABORATIVE, AND FUN

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ABSTRACT: I use the Dyadic Alternative in two sophomore-level courses that I teach at the Ranger School: "Forest Mensuration and Statistics" and "Tree Structure and Growth." The Dyadic Alternative is an innovative teaching/learning method that involves students working together in cooperative pairs. It was suggested by Licht (1993) and is based on the idea that "two heads are better than one." In essence, the Dyadic Alternative is a non-traditional, "upside-down", teaching/learning model, since formative quizzes on a chapter or unit *precede* the lecture and/or discussion of that unit. Moreover, students have the opportunity to collaborate on quizzes when using this method. The Dyadic Alternative forces students to take more responsibility for their own learning and encourages cooperation and active learning.

The Dyadic Alternative, as used by this author, consists of five steps. In step 1, students form groups of two by selecting partners. Resulting pairs, or "dyads", agree to remain as a unit for a specified period of time, possibly for the entire semester. For step 2, all students read the assigned chapter or unit in the course textbook for homework. When class meets again, students are quizzed individually on the assigned chapter. After turning in their first quiz, students immediately take the quiz again, but this time with their dyad partner. The higher of the two grades is recorded, completing step 3. In step 4, the instructor discusses the quiz and/or other material that may still be confusing, and/or reinforces key ideas, concepts, and methods. Finally, in step 5, the instructor arranges for summative testing of *individuals*.

The Dyadic Alternative is non-traditional in two important ways. First, students are tested on assigned subject matter *before* it is presented and/or discussed in class. This motivates students to complete homework assignments, and it forces them to

take more responsibility for their own learning. This increased motivation and responsibility usually leads to students being more alert, attentive, and inquisitive (i.e., prepared) in class. In short, it forces students to become more active learners.

The second unusual element of the Dyadic Alternative is the group testing component. After individually taking a quiz on an assigned chapter, students immediately re-take the same quiz with their dyad partner. Not only does this promote active learning, but the latter process also encourages cooperative learning, decreases test anxiety, and fosters a more enjoyable teaching/learning environment. In addition to these benefits, Sharik and Strong (1996) suggest that group testing actually increases learning. Unlike Sharik and Strong (1996), I did not utilize a formal, statistical approach to evaluate the merits of group testing; however, my qualitative observations are consistent with theirs. For example, I have observed that dyad partners develop a special bond, tutoring each other on course material both in and out of class. Also, the best students, even though their grades may not improve noticeably, derive personal satisfaction from helping others. Still another shared observation is that students come to class more prepared in order to contribute "their fair share" and/or so as not to appear ignorant or lazy in their partner's eyes.

Student feedback concerning the Dyadic Alternative has been very positive since I began using the method three years ago. The Dyadic Alternative helps create a more social, less competitive atmosphere that the students value and enjoy. Moreover, it exposes students to a more realistic teaching/learning model, one where collaboration is necessary and important. The Dyadic Alternative is just that, an alternative. What it offers to students, at the very least, is a change of pace…an appreciated break from the traditional lecture method of teaching/learning.

LITERATURE CITED

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