

1056-BC-1121      **William Barker\*** ([barker@bowdoin.edu](mailto:barker@bowdoin.edu)), Department of Mathematics, Bowdoin College, 8600 College Station, Brunswick, ME 04011. *The Power of Guided Discovery Analysis*. Preliminary report.

Since 1976 the speaker has taught *Introduction to Analysis* over ten times at Bowdoin College using a small group, cooperative, guided discovery format—no lectures. The content is standard: set theory, the real numbers, metric spaces, differentiation, and Riemann integration. But the guided discovery approach brings added vitality and excitement to this standard material. The students—from all levels of preparation and ability—become captivated by the concepts and results, aware of the subtleties, and develop true skill in rigorous mathematical thinking. The course is effective and a pure joy to teach. You too can do this. We'll show you how. (Received September 21, 2009)