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Albert C. Lewis* (alewis2@iupui.edu), Peirce Edition ProjectCA 545, 425 University Blvd., Indianapolis, IN 46202-5140. *Hermann Grassmann's algebra of 1844 and his version of student-centered learning.*

Hermann Grassmann had ambitious plans to give mathematics a new foundation in which the learner of mathematics should be provided with the same vantage point as the discoverer of the mathematics. This new approach was used in his first presentation of what today we call Grassmann algebra, the ill-fated *Ausdehnungslehre* of 1844. The purely mathematical content of his work eventually became known indirectly through the writings of others and through his more conventional version of 1861. English translations of these two works have been published only recently: *A New Branch of Mathematics: The Ausdehnungslehre of 1844 and Other Works* (Chicago: Open Court, 1995); *Extension Theory*, (Providence, RI: American Mathematical Society, 2000), both translated by Lloyd C. Kannenberg. Grassmann never abandoned his belief in the value of his earlier approach. In a number of ways he resembles the 20th-century topologist R. L. Moore who provided a better-known example of how student-centered teaching and mathematical research can be united. (Received July 18, 2000)