Problem-based learning (PBL) is used to describe a learning environment where the learning is driven by problems. PBL was implemented in two sections of an Introductory Statistics course, to determine the effectiveness of using PBL assignments on students’ performance on exams. Groups of students were given several PBL assignments through the semester. These assignments were open-ended problems based on real-world current events, such as iPods and their possible relation to hearing loss. The groups then discussed the problems and determined ways to approach solving it. Concepts typically covered in a more traditional lecture were instead brought in through the problem-solving process. Research to find ways to solve the problem, both using the Internet and library materials, was encouraged. Groups continued work outside of class and prepared a written report documenting their findings and recommendations. Tests scores were compared between treatment and control groups, with the previous semester’s students acting as the control. Several challenges were encountered in implementing PBL in the statistics classes. These issues, and ideas for further refinements of the PBL experience, will be reported along with the quantitative comparisons of the treatment and control groups. (Received September 26, 2006)