A trial of physics education for liberal arts students using the Advancing Physics

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We performed a new approach to physics education for liberal arts students. The Advancing Physics, a modern textbook developed by the Institute of Physics, was employed as the base of our approach [1]. The textbook is characterized by the facts: (1) it includes a variety of modern topics about science and technology, (2) it is attractive for students with various interests, (3) the use of math is kept to a minimum.

We had one-semester lectures with 172 students of non-scientific majors. Results of the questionnaire about the difficulty of the lectures showed they could understand enough (Fig. 1). After completing the lectures, 91% of the students answered their interests in science and technology increased. From these results and our experiences, we conclude that this approach is effective in raising scientific literacy of liberal arts students. On the other hand, we experienced some difficulties in lecturing, mathematical techniques in particular, which should be modified by the next trial.


Fig. 1 Results of the questionnaire about the difficulty of each topic.