

Abstract for an Invited Paper
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Teaching Physics to Blind and Dyslexic Students

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Teaching and learning physics generally breaks down into three types of activity:

- Face to face communications (eg lectures, office sessions)
- Labs
- Written communication (eg lecture handouts, written homework, quizzes and tests) pose difficulties for students who are blind, low vision, dyslexic, or have other print disabilities.

Common sense guidelines can facilitate face-to-face communications, and careful division of tasks can make labs worthwhile to students with print disabilities. This presentation will focus on the most difficult challenge – that of written communication. Presently written materials are usually communicated to and from such students by people whose job is to “make materials accessible.” This is virtually never a satisfying experience for either the physics instructor or a conscientious student. Several new computer access technologies will be demonstrated – ones that now permit students with print disabilities direct access to well-written electronic materials that include text, math, and graphics. The students do “pencil and paper” work using special computer applications whose final results for homework or tests are printed or submitted electronically to the faculty member or TA. Virtually all “written” information in first world educational institutions is generated on a computer, so very little extra effort by faculty members is needed to assure that students with print disabilities who use these new technologies can receive and return written materials.