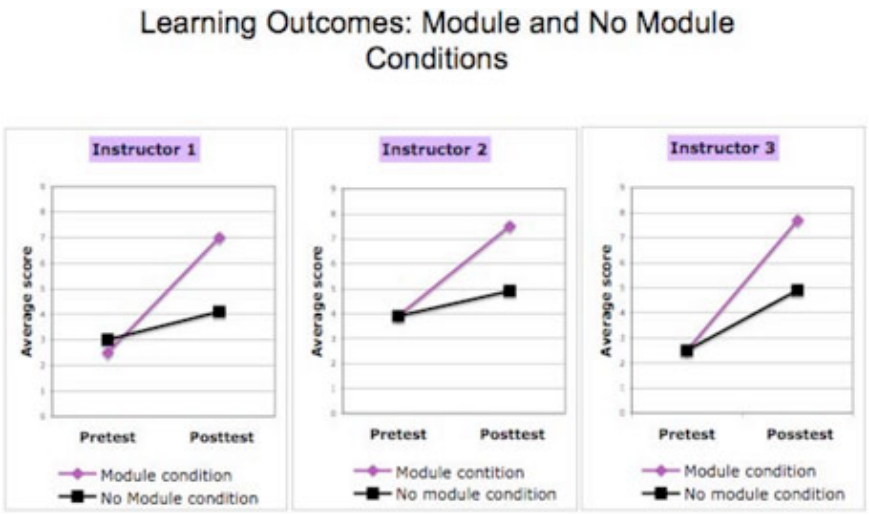
Learning Outcomes of Factual Knowledge:

A Comparison of Module and No Module Conditions

During the 2004–2005 academic year, a study of the learning outcomes associated with the use of an IRIS Module was conducted at a large urban campus with a diverse student body. The module's content pertained to instructional accommodations for students with visual disabilities. In an introductory class aimed primarily at general and special education majors, and with multiple sections offered each quarter, three instructors taught the course one quarter without the IRIS Module, and the next quarter with the IRIS Module. A total of 620 students were involved across these sections and two conditions.

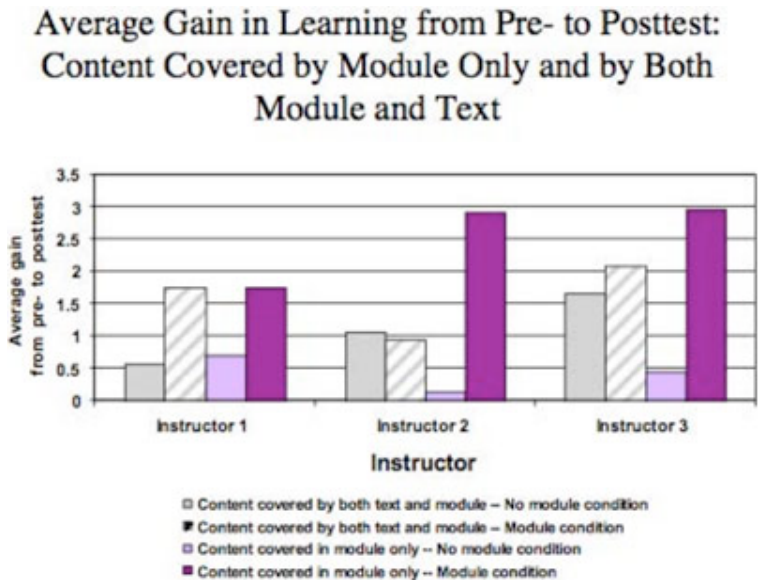
Students in both conditions were administered a pretest and post-test. These involved a hypothetical scenario in which a teacher learns that two students with visual disabilities will be among her incoming class. Takers of the pretest and post-test were instructed to indicate what the teacher should do, and their responses were scored. Responding to this scenario involved applying to the scenario content that was covered by the text and/or the module. In every case, the average post-test score for students who viewed the module was significantly higher than that for students who did not (see Figure A, below). The average effect size—an indicator of the magnitude of the difference between the two conditions—was 1.08, which can be interpreted as a large effect.

Figure A:



Because the module contained content that was common to both the module and the text and content that was unique to the module, we also looked at students' responses according to what content was reflected (common versus unique). In terms of how much they changed from the pretest to the post-test, positive gains in learning occurred for both types of content. Further, for two of the three instructors, the gains exhibited were significantly larger for students who viewed the module with respect to both types of content (see Figure B, below). This suggests that the effectiveness of modules may be in both reinforcing material presented in textbooks and infusing this material with new and additional content.

Figure B:



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