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LISTENING TO THE NEW STUDENT VOICE: HOW THEY LEARN
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Introduction:
In 2003 it was forecasted that medical students’ preclinical learning would mostly consist of large portions of educational training and instruction provided on the internet and other technology tools, while the traditional lecture format would become more infrequent. Five years later many medical schools have adapted to this new technological-enhanced learning environment.

No one can argue that today’s millennial generation of medical students is more familiar with technology than their predecessors. However, does this technology savvy generation report that these new tools are indeed superior when compared to the traditional tools of facilitating learning and understanding in the preclinical years? Additionally, is there a difference in usefulness of learning techniques for students in year one as compared to year two of medical school?

This study examines the learning tools in basic science courses to determine how the millennial generation of students report they are learning best. Tools from our blended learning curriculum were investigated within and across preclinical years one and two.

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Methods:
End of course evaluation data was analyzed in a matched design analysis from two recent cohorts (N=185). The cohorts were AY0405 (Y1)-AY0506 (Y2) (cohort 1) and AY0506 (Y1) –AY0607 (Y2) (cohort 2). Students rated the extent each of eight techniques (Independent Learning, Handouts/Syllabus, Lectures, Computer Based Instruction(CBI), Conferences/Discussion Groups, Textbooks, Multimedia, Labs) helped them understand and learn the subject (four point scale: None =1, Very Little=2, Somewhat =3 and Very Much=4). Ratings of the items were averaged across all courses at the student level. Differences across years were assessed using paired t-tests. Additionally, two evaluators, blinded to the quantitative results, performed independent qualitative analysis of student comments.

Results:
Analysis revealed “Independent Learning” and “Handouts/Syllabus” were stable and the most helpful in facilitating learning in both years. Even though “Lectures” and “CBI” had the 3rd and 4th highest ratings in both years, they both significantly dropped in year two (p <.01).

The small group sessions provided a great opportunity to ask questions and solidify our understanding. A lot of learning occurred there. (AY0607, YR2)

Perhaps more problem based cases -- this is a more interesting and more intellectually stimulating way to learn. (AY0506, YR2)

Conclusion:
Findings suggest that “Independent Learning” appears to be the single most useful method for helping students facilitate learning in the preclinical years. Perhaps tools that aid students’ “Independent Learning” could be incorporated into the preclinical curriculum. As described by previous research, the definition of “Independent Learning” remains unclear due to its inherent subjective nature. These findings necessitated a change to the UMMS evaluation system, where in Spring of 2008, an opened ended item was added to the evaluations which asked students to define “Independent Learning.” Further study on this topic is currently ongoing.


1=none, 2=very little, 3=somewhat, 4=very much
2Statistically significant at p < .05 level

The student practice tools were awesome and a great way to learn because students discussed as much and taught one another throughout those sessions. (AY0506, YR1)

I’m really glad that lectures are streamed online... they are especially helpful for review after I’ve already attended the lecture and looked at notes again. kudos!! (AY0607, YR2)