First year Biology at Flinders University: Transition from a traditional lecture-based course to an interactive concept-based course.

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A recent survey of 350 first year biology students was administered to determine individual’s attendance levels at lectures, reasons for missing lectures and student’s views on lectures in general. Our results indicate that the main reasons students do not attend lectures are: 1. students find lectures boring, 2. they can get the information from web-CT and 3. the lecture clashed with paid employment or other social engagements. Compounding this problem is the need for universities to maximize class size to accommodate large numbers of first year students which can lead to lecturers delivering a monologue to a passive audience. To enhance learning in this environment and to promote lecture attendance, innovations in teaching and learning which enhance student engagement and understanding are necessary. Our questions then are: Does increasing student/teacher interactions in large first year classes increase student attendance and consequently understanding of lecture material? Will this result in increased retention of students into second year biology topics? To address these questions we have introduced concept-based lectures combined with personal response systems (clickers) and large-group interactive tutorial sessions. Preliminary results suggest that these tools do enhance learning and facilitate a high level of student engagement. Student feedback shows that classroom attendance, student engagement and understanding were all positively affected by this method of lecture delivery.