

Original article:

Innovative teaching verses traditional teaching in anatomy

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Abstract:

Introduction: Traditional teaching in anatomy goes with lectures and dissection of cadavers in dissection hall. There are different teaching strategies that could be used to teach anatomy to large groups of students. It is important to use multiple techniques in order to reach as many different types of learners as possible. Furthermore, anatomy has only been taught by using the transmission technique (i.e. lecture), and with today's technology there are many other ways that could be used.

Methodology: The present work was done in department of anatomy over one year. The work was approved by expert committee. The first year students were involved in said project. The sample size was determined with help of expert statistician. The students voluntarily agreed were involved while those not were excluded. Number of students involved in present study were 92 students.

Results and Conclusion: It is important to use multiple techniques in order to reach as many different types of learners as possible.

Introduction:

Traditional teaching in anatomy goes with lectures and dissection of cadavers in dissection hall. There are different teaching strategies that could be used to teach anatomy to large groups of students. It is important to use multiple techniques in order to reach as many different types of learners as possible. Furthermore, anatomy has only been taught by using the transmission technique (i.e. lecture), and with today's technology there are many other ways that could be used. This is an important topic for people in our discipline as most anatomy classes contain over 200 students, and these students will all have different learning styles. In order to effectively

instruct all of these students to the best of our abilities we need to use a variety of teaching strategies above and beyond the normal course of lecture.^{1,2}

Material and methods:

The present work was done in department of anatomy over one year. The work was approved by expert committee. The first year students were involved in said project. The sample size was determined with help of expert statistician. The students voluntarily agreed were involved while those not were excluded. Number of students involved in present study were 92 students.

The students were exposed following tasks.

- 1) Seminar : 30 minutes
- 2) Computed assisted demo : 30 minutes
- 3) Group discussion : 30 minutes
- 4) Interactive assisted computed modules : 30 minutes

The student feedback was received by using perceptions using approved questionnaire.

Observations and results:

Table :

S NO	Method	Duration (minutes)	Topic used	Student feedback
1	Seminar	30	Thyroid gland	Students found interest and increase active involvement
2	Computer assist demo	30	Thyroid gland	Students found interest and increase active involvement
3	Group discussion	30	Thyroid gland	Students found interest and increase active involvement
4	Interactive modules	30	Embryology model	Students found interest and increase active involvement
5	Traditional teaching	Regular teaching	Regular teaching	Routine work found laziness & less involvement

Discussion:

Multiple presentation strategies will be used including lecture, computer assisted learning (on-line availability of the notes/slides), use of active demonstration (drawing on clothing), and small-group discussion. Traditional lecture was planned to allow for comparison to the other teaching strategies. The on-line availability of the slides/notes was used in order to introduce the use of computer assisted learning as per Veneri (2010).³The use of active demonstration was planned in order to show that this technique is at least as effective as traditional lecture,

and that students would experience greater satisfaction as per Chan (2010) and Sturges et al (2009).⁴ Flash cards and small group discussion was planned in order to show that this could be more effective than traditional lecture as per Chase and Geldenhuys (2001). During the 15 minute group assessment and summary, author anticipate that the conclusion of the group will be that a multimedia approach will be the most effective teaching strategy, as proposed by Kerby et al (2010).⁵

Teaching Anatomy faces inherent and contextual challenges. First, Anatomy is a difficult subject as

students have to learn many new concepts and complex terminologies. As a result, students traditionally find this a dull and labour-intensive subject, concentrating their efforts on “memorizing” lists of names in typical surface-learning approaches (Biggs, 2003).⁶ Second, there are also more recent pressures as the changing face of medical education in Australia has led to most Australian Universities now having fewer contact hours to teach Anatomy. Third, classes are large and extremely diverse with respect to students’ entry level, prior experience, scientific literacy levels, cultural backgrounds and professional fields. So, over the past 5 years, as a passionate and enthusiastic Anatomy lecturer, I have tried to find and evaluate methods to teach *all* students Anatomy more effectively, in less time, and often with limited resources.⁷

The application of computer based technology in medical education system is being both the rewarding and challenging. The introduction of different material based learning aids including computer applications in the form of various softwares, use of Lcd projectors, internet and telecommunications has the potential of changing the face of medical education. In India, an application of technology in medical education is on the way to rise. Every medical teacher should now these newer trends and changes in technology. Role of medical education technology unit is really vital in this changing century.⁸

Conclusion:

It is important to use multiple techniques in order to reach as many different types of learners as possible.

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