Flipped learning in a multi-site first year anatomy unit

A topic within a first year anatomy unit at ACU for Speech Therapy students was flipped in both 2015 and 2016. Results from two surveys related to the study are presented as well as a comparison of students responses on relevant examination questions between years with flipped content compared to years before the content was flipped.

Project Overview

Flipped learning is one approach to teaching that is thought to drive student centred, active learning (O’Flaherty et al., 2015; Presti, 2016). Flipped learning is theorized to drive student driven learning and engagement.

This study reports on student’s perceptions of a ‘Flipped Learning’ experience, which was part of a large cross institutional study, with first year students studying bioscience units.

In this part of the study students were studying specialized anatomy within a Speech Therapy degree which is run on 3 campuses (Melbourne, Sydney, Brisbane) at the Australian Catholic University.

Method

Ethical approval was gained to survey students on their learning preferences and post flipping experiences using online survey tools.

One topic was identified to ‘Flip’ and the topic was ‘flipped’ following guidelines developed by the OLT flipped learning project group.

The anatomical area of the Pharynx was chosen; this included students learning the general anatomy (structure and function) of the region as well as the process and stages of swallowing.

Students experienced a two week ‘Flipped Learning’ module in week 10 of a 12 week unit on the Pharynx and swallowing control. Students participated in online self-paced learning activities containing self-testing elements before attending a ‘flipped lecture’. The lecture was replaced by a Kahoot based quiz style session that covered the topics in the online lesson.

Additional to the surveys, 8 examination questions were identified on past examination papers that would be used in the present exams for comparison of groups.

In the first year (2015) all students across all campuses were invited to complete a ‘learning experiences’ survey. In the first and second years (2015 & 2016) all students were invited to complete a ‘post-flipped experience’ survey. Both surveys were conducted online using Survey Monkey.

Summary

- Pre-learning survey highlighted the importance of grades and also issued with students reading and normal preparation and problem solving strategies.
- Students had mixed responses on flipped experience with some preferring the traditional approach and others appreciating the new learning opportunities and increase influence of peer learning in their flipped experience.
- There are some similarities and differences between the two cohorts- this is yet to be explored.
- Interesting that for both groups there were mixed results on the experience helping them to feel more part of a learning group.
- Examination results in the post flipping group do show positive trends with learning.

Responses

Learning preferences survey (2015):
- Forty nine students completed the first survey consisting of questions about learning style and goals for learning. This was a response rate of 28%

Flipped Experience survey (2015):
- Of the cohort only 33 students completed this survey. This is a response rate of 18.5%
- Of the cohort only 32 students completed this survey. This was a response rate of 19.5%.

Examination Question Comparison

- Functions of the pharynx
- Pharyngeal tonsil (adenoids)
- Regions of the pharynx
- Functions of the pharynx
- Pharyngeal constrictor muscles
- Salivary glands
- Features of the pharynx
- Accessory pharyngeal muscles

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Works Cited