Nursing Students Choose Their Own Role in a Flipped Classroom Approach

Many nursing programs are using transformative pedagogical methods to better prepare students "to meet today's complex health care needs" (Benner, 2012, p. 183). Five studies, identified by Njie-Carr et al. (2016), show a flipped classroom approach increased active engagement in class and improved performance outcomes for nursing students. A flipped classroom typically includes preclass instruction and "in-class group interactive activities" (Njie-Carr et al., 2016, p. 134).

In an undergraduate nursing assessment course, the traditional lecture covering the thorax and lungs was transformed to include a flipped classroom approach and a prelecture online sign-up that allows students to select a role for a team activity. The roles include artist, timekeeper, researcher, spokesperson, and model. Students read a brief description of each role and select the one that best matches their perceived strengths such as auditory, visual, kinesthetic, or verbal (Dunn & Honigsfeld, 2013). The instructor encourages students to read the assigned chapter covering assessment of the thorax and lungs prior to class time. Assessment videos are also available, and homework on the topic is due at the beginning of lecture.

The instructor hosts this flipped lesson in a traditional auditorium-style lecture room with a cohort of approximately 120 students in a Bachelor of Science program (divided into 16 groups of seven to eight students). During class, the timekeeper leads the group to a designated work area of either the lecture room itself or to the quiet lobbies at each end of the hall outside the classroom. The artist re-creates the assigned landmark, reference line, or underlying anatomical structure on the t-shirt of the group's model, using white silk tape. For example, one group locates and marks the outline of the scapulae. The team researchers use their textbook to determine why this particular anatomical structure is important when assessing the thorax and lungs and should recognize the importance of avoiding the bony scapulae during auscultation of the lungs as this would obscure audible lung sounds. The instructor rotates among the groups, giving immediate feedback. When the groups reconvene in the classroom, the model displays the appropriate landmark, reference line, or underlying anatomical structure (marked with silk tape on the t-shirt) while the spokesperson explains the team's conclusions to the rest of the cohort. The learning objectives of the activity include:

- Identify major anatomical landmarks of the thorax and lungs.
- Identify superimposed reference lines of the thorax and lungs.
- Describe underlying anatomy of the airway, lungs, and thoracic cavity.
- Explore this information in relation to assessment of the thorax and lungs.

The students consistently reach reasonable conclusions about the importance of each landmark and reference line, though the instructor occasionally clarifies or expands on the information provided by students. For example, the team that marks the outlines of the trachea, plus the left and right main stem bronchi, typically shares that the right bronchus is shorter and straighter and therefore more vulnerable to aspiration. The instructor may add that during intubation, an endotracheal tube that is inadvertently placed too deep often goes down the right bronchus, thus putting the right lung at risk for overinflation. The instructor may then engage the students in a discussion about assessing correct placement of an endotracheal tube. This is an opportunity to develop the students' clinical reasoning.

This flipped lesson encourages students to actively engage in learning on a deeper level than a more traditional lecture might. Students particularly like choosing a team role that matches their strengths and accommodating students' learning style preferences has also been shown to benefit their academic achievement (Dunn & Honigsfeld, 2013).

References

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