

Preferred Learning Styles of Graduate Health Science Students and the Effect on Academic Performance

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The research objective is to evaluate the preferred learning styles of graduate physical therapy students taking an anatomy course and analyze correlation to academic performance. With increasing rigor in graduate level programming, a shift from a pedagogical teacher-centered approach to an andragogical student-centered approach may be appropriate (Kharb et al., 2013). Understanding student learning styles is one way to further the understanding of how learners perceive, understand, and apply information. This information can be utilized to prepare material and assess performance. A cross sectional survey research design was utilized for collecting data. The VARK Questionnaire, version 8.01, was used to determine the learning mode of a convenience sample of physical therapy doctorate (DPT) students in their first term attending a face-to-face anatomy course. The VARK Questionnaire is a 16-item survey, that examines learning in the visual, aural, read/write and kinesthetic senses. Students were asked to identify all preferred modes to learning. The survey was administered through Qualtrics (Qualtrics, Provo, UT & Seattle, WA: <https://qualtrics.com>). The university's Institutional Review Board provided ethical approval and informed consent was given from all participants. Distribution of the survey was sent via email to all participants. Participation was completely voluntary. Raw, de-identified survey data were exported via the Qualtrics site and descriptive statistics were analyzed. Student learning preferences will be correlated to performance on lecture and lab outcomes using SPSS 28.0. Twenty-nine participants completed the survey (87.9%), with a mean age of 23.5. Seven participants reported a kinesthetic unimodal learning style (24.1%). Fifteen participants reported a bi-modal learning style (51.7%), with the kinesthetic mode being the highest (80%) preferred style, the aural mode being the second highest (13%), and the visual mode being the third preferred style (7%). Seven participants identified a trimodal learning style (24.1%), with varying combinations. One hundred percent of all participants identified kinesthetic as one of the preferred senses. Preferred learning styles within a cohort can vary widely. Understanding these styles can guide faculty in their choice of presentation and assessment graduate level programs may consider understanding and differentiating teaching and assessment approaches to augment student success.

References

- Kharb, P., Samanta, P., Jindal, M., & Singh, V. (2013). The learning styles and the preferred teaching-learning strategies of first year medical students. *Journal of Clinical and Diagnostic Research*, 7(6), 1089–1092. <https://doi.org/10.7860/JCDR/2013/5809.3090>
- Khanal, L., Giri, J., Shah, S., Koirala, S., & Rimal, J. (2019). Influence of learning-style preferences in academic performance in the subject of human anatomy: an institution-based study among preclinical medical students. *Advances in Medical Education and Practice*, 10, 343–355. <https://doi.org/10.2147/AMEPS198870>