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### **Using Eye-Trackers to Study Student Attention in Physical Science Classes**

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This study investigates the gaze patterns of undergraduate college students attending a lecture-based physical science class to better understand the relationships between gaze and focus patterns and student attention during class. The investigators used a new eye-tracking product; Tobii Glasses. The glasses eliminate the need for subjects to focus on a computer screen or carry around a backpack-sized recording device, thus giving an investigator the ability to study a broader range of research questions. This investigation includes what students focus on in the classroom (i.e. demonstrations, instructor, notes, board work, and presentations) during a normal lecture, what diverts attention away from being on task as well as what keeps a subject on task. We report on the findings from 8 subjects during physical science lectures designed for future elementary school teachers. We found that students tended not to focus on the instructor for most parts of the lecture but rather the information, particularly new information presented on PowerPoint slides. Finally, we found that location in the classroom also impacted students' attention spans due to more distractors.