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Gaze Analysis System for Immersive 360° Video for Preservice Teacher Education

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VR for fresh teacher to be better educators and learn more about classroom environment and students



Photo by Kenny Eliason on Unsplash



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What is it about?

we propose a visual analysis framework for replicating a participant's viewing involvement by interpreting head movements as rotations and point-of-gaze (POG) as on-screen indicators. Our solution suggests an additional layer of system for near-real-time for processing and analyzing this multi-device data to connect with the data and enable both near-real-time or subsequent offline viewing of the entire VR eye-tracking session. Moreover, our method provides a no-batteries-need solution to create traditional eye-tracking visualization techniques. Finally, we apply three prior education technology analysis metrics: higher density gaze for students, shorter fixation time, and less fixation duration variance for students to determine expertise levels in this system. We systematically establish a ubiquitous, multi-device, eye-tracking solution to incorporate this approach.

Why is it important?

Provides visual analysis framework for multi-device in-headset viewing
Additional capability for online/offline processing of eye-tracking datum
Batteries-included system for traditional eye-tracking techniques and analysis flows
Establish use-case for determining expertise in preservice teacher educators

Perspectives



Pegah Ahadian
Kent State University

This pioneering approach has the potential to greatly impact the field of teacher education, paving the way for more efficient and targeted training methods in the future.

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The following have contributed to this page: Karl Kosko and Pegah Ahadian



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