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## A novel computer-based simulated learning environment in audiology with learning assistance: Preliminary findings (Article)

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### Abstract

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**Introduction:** This paper describes the development and the evaluation of a new Two-dimensional (2D) computer-based (CB) Simulated Learning Environment (SLE) software for routine audiology tests that comes with learning assistance for audiology students. The aim of the study was to serve as preliminary evaluation on the effectiveness of the new 2D CB SLE audiology software among audiology students. **Materials and Methods:** The development process of the new 2D CB SLE includes, (i) the identification of common errors made by students in the audiology clinic, (ii) the development of five case simulations that include four routine audiology tests incorporating learning assistance derived from the errors commonly made by audiology students and, (iii) the development of 2D CB SLE from a technical perspective. A preliminary evaluation of the use of the 2D CB SLE software was conducted among twenty-six second-year undergraduate audiology students. **Results:** The pre-analysis evaluation of the new 2D CB SLE showed that the majority of the students perceived the new 2D CB SLE software as realistic and helpful for them in achieving the course learning outcomes and in improving their clinical skills. The mean overall scores among the twenty-six students using the self-reported questionnaire were significantly higher when using the 2D CB SLE software than with the existing software typically used in their SLE training. **Conclusions:** This new 2D CB SLE software has the potential for use by audiology students for enhancing their learning. © 2019, Malaysian Medical Association. All rights reserved.

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