UNIVERSITY OF NEWCASTLE

VIRTUAL REALITY ORAL
MUSCULATURE ASSESSMENT (VOMA)

Innovative VR Teaching Technology for Speech Pathology Education

Virtual Reality Oral Musculature Assessment (VOMA) is an innovative teaching technology developed in collaboration with industry partner Start Beyond, designed to teach fundamental clinical assessment skills to speech pathology students through immersive VR experiences. Our groundbreaking technology addresses critical gaps in traditional teaching methods by providing realistic, standardised, and repeatable training experiences for conducting oral musculature assessments on paediatric clients.

TECHNOLOGY CAPABILITIES

- **Realistic VR Simulation:** Immersive virtual reality environment for conducting oral musculature assessments
- **Paediatric-Specific Training:** Accurate representation of child vs. adult oral cavity anatomical differences
- **Standardised Learning:** Consistent, repeatable assessment scenarios for skill acquisition and consolidation
- **WIL-Readiness:** Prepares students for work-integrated learning by building confidence before real client interaction
- **Industry Partnership:** Developed through collaboration with Start Beyond for commercial viability

PROVEN IMPACT

- **Student Confidence:** Student's OMA confidence increased through use of tool
- **Educator Engagement:** Practice educators actively seeking to participate and learn from the technology
- **Professional Recognition:** National and international speech pathologists expressing interest in the application
- **Commercial Viability:** IP/Licensing agreements signed with growing national and international commercialisation interest
- **Educational Innovation**: Replacement of traditional teaching methods of student role plays with realistic immersive simulation

REVOLUTIONISING CLINICAL SKILLS TRAINING

VOMA transforms how speech pathology students learn to conduct oral musculature assessments—a fundamental yet challenging clinical skill. Instead of practicing on adults (which doesn't reflect paediatric anatomy) or immediately working with real children (which can be stressful for both student and child), VOMA provides realistic paediatric simulations where students can practice repeatedly, build confidence, and develop competence before their first real client interaction.

VOMA SPEECH PATHOLOGY

VOMA - VIRTUAL ORAL MUSCULATURE ASSESSMENT

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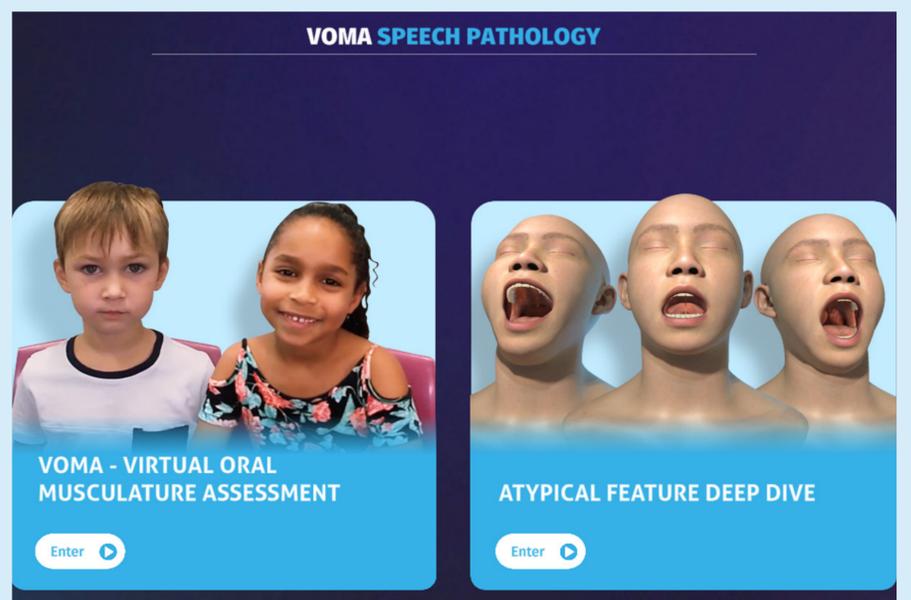
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