Development of a Higher-order Instruction Coding Taxonomy for Observational Data: Initial Application to Professional Driving Instruction

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Why do this research?

Professional driving instruction provides an opportunity to improve the higher-order skills of young learner drivers. Recent research suggests that an improvement in these skills can reduce the crash risk of newly licensed drivers.

The first step in developing a much-needed best practice in teaching these higher-order skills during on-road learning is to understand current practice. A coding tool will not only allow for a thorough understanding of professional driving instruction, the tool also can help determine the effectiveness of higher-order instruction in reducing crash risk. In this way, collaborating with industry can lead to the development of interventions which bring research and the real world together.

What did we do?

A higher-order coding taxonomy was developed and tested to see if it was reliable and valid, so we could be sure that it does what was intended; understand higher-order instruction in learner driver lessons.

What did we find?

The higher-order coding taxonomy was an effective tool for understanding the complexity of professional higher-order driving instruction. Opportunities for improved higher-order instruction were identified, and more higher-order instruction was not necessarily best practice. Rather, the content, timing and strategies used to deliver the instruction was important to best practice. The over-archning strategy to deliver better instruction was student-focused, rather than teaching-focused.

What does it mean?

A tool to explore and assess current driving instruction practices and inform program development which is ultimately aimed at improving the crash risk posed to young novice drivers has been developed. The tool is adaptable and can be applied to driving lessons of other teachers, and assessments with populations other than learner drivers. The taxonomy is also relevant to other high skill acquisition tasks such as those required in military and pilot training.