

# Coached Malingering Detection: Validity of an Online Adaptation of the Portland Digit Recognition Test

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## Introduction

- The prevalence of malingering following a personal injury is estimated to range from 1%<sup>1</sup> to more than 50%<sup>2</sup>.
- Additionally, with the proliferation of telehealth and online neuropsychological assessment, a question is raised to whether the results of such measures are comparable to those used in person.
- Therefore, this study aimed to validate an online adaptation of the PDRT for detection of coached malingeringers.

## Participants

- Two-hundred and eighty-two (282) volunteers were recruited from ResearchMatch.
- Participants were randomly assigned to the coached malingeringers' or control group.

Table 1. Sample Demographics

Participant Characteristics	Coached	Control
n (# female)	136 (104)	146 (123)
% English as first language	93.4%	94.5%
% White	79.4%	78.1%
% non-Hispanic/Latino	94.1%	93.2%
Age	41.24 ± 14.22	42.53 ± 15.95
Years of Education	17.73 ± 2.98	17.69 ± 3.11

## Methods

- Coached participants were provided with a vignette/scenario detailing a car crash they were to pretend they were involved in.
- All Participants completed an online adaptation of the Portland Digit Recognition Test (PDRT).
- Sensitivity for the online PDRT was compared to in-person PDRT scores from published simulation studies<sup>3,4</sup>

Table 2. Experimental Conditions

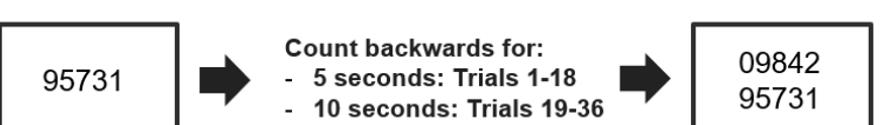
Experimental Condition	Provided Scenario?	Provided Symptoms of Head Injury?	Provided Test-taking Strategy?	Instructions Given
Coached Simulators	Yes	Yes	Yes	Feign Head Injury
Controls	No	No	No	Give Best Effort

## PDRT Adaptation

- During the first 18 trials, participants listened to an audio file of the strings of 5-digits being read at a pace of 1 digit per second.
- Next, they viewed a screen that showed a countdown clock and were instructed to count backwards out loud starting at 20 for 5 seconds.
  - Subjects remained on this screen until the 5 seconds were up.
- Lastly, participants were presented with two strings of 5-digits, arranged one on top of the other, and had to select the one they previously heard (recognition).
- The second 18 trials required examinees to count backwards for 10 seconds.

### PDRT Online Adaptation

- 36 total trials split into two blocks of 18 trials



## Results

Table 3. Sensitivity when Detecting Coached Malingeringers

Study	Sensitivity
Current Study	94%
Rose et al. (1998)	47%
Gustad and Suhr (2001)	25%

## Discussion

- When compared to the sensitivity of in-person PDRT scores, the online adaptation had higher sensitivity.
- These results helped demonstrate the validity of an online version of the PDRT for detection of coached malingering.
- Additional research and comparisons are needed to further validate the online version of the PDRT for detection of coached malingering.

## References

<sup>1</sup>Hickling, E. J., Taylor, A. E., Blanchard, E. B., & Devineni, T. (1999). *Simulation of motor vehicle accident related PTSD: Effects of coaching with DSM-IV criteria*. In E. J. Hickling, & E. B. Blanchard (Eds.), *The international handbook of road traffic accidents and psychological trauma: Current understanding, treatment, and law* (pp. 305–320). New York: Elsevier.

<sup>2</sup>Resnick, P. J. (1997). Malingering of posttraumatic disorders. In R. Rogers (Ed.), *Clinical assessment of malingering and deception* (2nd ed.) (pp. 130–152). New York, NY: Guilford Press.

<sup>3</sup>Rose, F. E., Hall, S., Szalda-Petree, A. D., & Bach, P. J. (1998). A comparison of four tests of malingering and the effects of coaching. *Archives of Clinical Neuropsychology*, 13(4), 349–363.

<sup>4</sup>Gustad, J., Suhr, J. (2001). Efficacy of the full and abbreviated forms of the Portland Digit Recognition Test: Vulnerability to coaching. *The Clinical Neuropsychologist*, 15, 397–404.