

**NINDS CDE Notice of Copyright
Simple and Two Choice Reaction Time**

Availability:	Please visit this website for more information about the instrument: http://hdresearch.ucl.ac.uk/completed-studies/track-hd/
Classification:	Core.
Short Description of Instrument:	<p>Summary/ Overview of Instrument: The task can be administered in several different ways. In the simple reaction time (RT) condition, the participant responds to the same stimulus on each trial (i.e., measures simple psychomotor speed). In the 2-choice RT condition, the participant makes one of two responses to one of two stimuli. Longer RTs are observed for choice compared with simple RT.</p> <p>Construct measured: Response selection and psychomotor speed.</p> <p>Generic vs. disease specific: Generic.</p> <p>Intended use of instrument/ purpose of tool (cross-sectional, longitudinal, diagnostic, etc):</p> <p>Means of administration (paper and pencil, computerized): Computerized.</p> <p>Location of administration (clinic, home, telephone, etc): Clinic.</p> <p>Intended respondent (patient, caregiver, etc.): Patient.</p> <p># of items: N/A.</p> <p># of subscales and names of sub-scales: N/A.</p> <p>Strengths: Tasks is highly sensitive to changes in prodromal HD, both cross-sectionally and longitudinally. Task has been tested at sites in the United States, Canada, United Kingdom, Australia, Germany, and Spain. Task is easy to administer.</p> <p>Weaknesses: Touch screen response devices are not as reliable as button press devices.</p> <p>Special Requirements for administration: Computer and a touch screen or an external button-press device.</p> <p>Administration Time: 10 minutes.</p> <p>Translations available (e.g. Spanish, French, Other languages): The task can be administered in any language.</p>
Scoring:	<p>The main measure is reaction time, which is defined as the amount of time elapsed between the presentation of a stimulus and the subsequent response.</p> <p>Standardization of scores to a reference population (z scores, T scores, etc): The task has not been standardized.</p>

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Psychometric Properties:	<p>Reliability: N/A.</p> <p>Validity: Construct validity: Longer RT for the 2-choice than the simple RT condition suggest that the experimental manipulation influences response selection.</p> <p>Sensitivity to Change/ Ability to Detect Change (over time or in response to an intervention): In published cross-sectional (Stout et al., 2011) and internal analyses (PREDICT-HD), simple and choice RT are sensitive to changes in prodromal HD, especially in individuals who are closer to an expected diagnosis. Unpublished internal analyses of 7-year longitudinal data (PREDICT) show changes in prodromal HD for simple and choice RT. Choice RT is slightly more sensitive in cross-sectional and longitudinal analyses.</p> <p>Known Relationships to Other Variables (e.g. gender, education, age, etc): N/A.</p> <p>Diagnostic Sensitivity and Specificity, if applicable (in general population, HD population- premanifest/ manifest, other disease groups): N/A.</p>
References:	<p>Key Reference: Stout JC, Paulsen JS, Queller S, Solomon AC, Whitlock KB, Campbell JC, Carlozzi N, Duff K, Beglinger LJ, Langbehn DR, Johnson SA, Biglan KM, Aylward EH. Neurocognitive signs in prodromal Huntington disease. <i>Neuropsychology</i> 2011;25:1-14.</p>