**Consensus on the Reporting and Experimental Design of clinical and cognitive-behavioural Neurofeedback studies (CRED-nf) best practices checklist 2020\*** (an online tool to complete this checklist is available at [[rtfin.org/CREDnf](http://www.rtfin.org/CREDnf)](http://www.rtfin.org/CREDnf)).

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| **Domain** | **Item #** | **Checklist item** | **Reported on page #** |
| **Pre-experiment** |
|  | 1a | Pre-register experimental protocol and planned analyses | 3 |
| 1b | Justify sample size | 13 |
| **Control groups** |
|  | 2a | Employ control group(s) or control condition(s) | 13, 20 |
| 2b | When leveraging experimental designs where a double-blind is possible, use a double-blind | 5 |
| 2c | Blind those who rate the outcomes, and when possible, the statisticians involved |  |
| 2d | Examine to what extent participants and experimenters remain blinded |  |
| 2e | In clinical efficacy studies, employ a standard-of-care intervention group as a benchmark for improvement |  |
| **Control measures** |
|  | 3a | Collect data on psychosocial factors | 3, 13 |
| 3b | Report whether participants were provided with a strategy | 5 |
| 3c | Report the strategies participants used | 12, 17 |
| 3d | Report methods used for online-data processing and artifact correction | 6-7, 15-16 |
| 3e | Report condition and group effects for artifacts | 6-7, 15-16 |
| **Feedback specifications** |
|  | 4a | Report how the online-feature extraction was defined | 6-7, 15-16 |
| 4b | Report and justify the reinforcement schedule |  |
| 4c | Report the feedback modality and content | 5-7, 14-15 |
| 4d | Collect and report all brain activity variable(s) and/or contrasts used for feedback, as displayed to experimental participants | 6-7, 15-16 |
| 4e | Report the hardware and software used | 3-6, 13-15 |
| **Outcome measures** |
| Brain | 5a | Report neurofeedback regulation success based on the feedback signal | 8-12, 16-18 |
|  | 5b | Plot within-session and between-session regulation blocks of feedback variable(s), as well as pre-to-post resting baselines or contrasts | 8-12, 16-18 |
|  | 5c | Statistically compare the experimental condition/group to the control condition(s)/group(s) (not only each group to baseline measures) | no control group |
| Behaviour | 6a | Include measures of clinical or behavioural significance, defined a priori, and describe whether they were reached | 10-12, 15, 17 |
|  | 6b | Run correlational analyses between regulation success and behavioural outcomes | 8, 17 |
| **Data storage** |  |
|  | 7a | Upload all materials, analysis scripts, code, and raw data used for analyses, as well as final values, to an open access data repository, when feasible | Dataset: 21 |

\*Darker shaded boxes represent *Essential* checklist items; lightly shaded boxes represent *Encouraged* checklist items. We recommend using this checklist in conjunction with the standardized CRED-nf online tool ([rtfin.org/CREDnf](http://www.rtfin.org/CREDnf)) and the CRED-nf article, which explains the motivation behind this checklist and provides details regarding many of the checklist items.