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# Corrigendum: Gradient-free training of recurrent neural networks using random perturbations

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## KEYWORDS

recurrent neural network, artificial neural network, gradient approximation, BPTT, node perturbation learning

## A Corrigendum on

### Gradient-free training of recurrent neural networks using random perturbations

by Fernández, J. G., Keemink, S., and van Gerven, M. (2024). *Front. Neurosci.* 18:1439155. doi: 10.3389/fnins.2024.1439155

In the published article, there was an error in [Figures 5B, C](#) as published.

The training and test sequences for this task were identical due to an issue with seed initialization in the dataset generation function. This occurred due to a mistake merging old and new code, which caused an unintentionally re-initialized seed every time a sequence was generated. Thankfully, the impact of this mistake is very small. The updated results show almost no change in overall performance. In fact, the slightly different results for this task now better align with those obtained in the other tasks (the Mackey-Glass time series and the real-world weather prediction task), further strengthening our claims about the robustness and generalization of our proposed approach (ANP).

The corrected [Figures 5B, C](#) and its caption appear below:

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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