

## ***Interactive comment on* “Estimation of effective calibration sample size using visible near infrared spectroscopy: deep learning vs machine learning” by Wartini Ng et al.**

### **Anonymous Referee #2**

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The manuscript tackles with an important and interesting topic; however, the presentation was really poor, not easy to follow. The most important issue is that the manuscript lacks the Discussion section! Actually the manuscript is not ready to be submitted to a journal.

- Apart from the Abstract and Introduction sections, the other sections were totally mixed in a way that in some parts you could not get, which section you are reading. For example, Lns. 176-196 are method but have been presented in the Results sections. This is a critical issue in a paper that needs to be solved.

- The authors have compared CNN with PLSR and Cubist, as two common machine

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Discussion paper



learning techniques, although Cubist have not been very common in soil spectroscopy so far compared to RF and SVM. It would be fine if these algorithms also be taken into account.

- Some parts repeating the same thing several times. For instance, the section 4.3. generally repeats the same contents in Lns. 158-163 and Lns. 168-173 that should be avoided.

- In presenting the comparison between PLSR and Cubist has been missed. Please compare them as well. In general, the Results sections should be more detailed furnished with more obtained values and comparison of them.

- Surprisingly, the manuscript does not have the Discussion section, which is one of the most important parts of each paper. There are only some lines in the Result section whitin authors have presented the results of other similar studies (e.g. Lns. 148-151, Lns. 198-207, Lns. 212-215), which cannot be considered as the discussion of the results of the current work. Please separate the section of Results from the Discussion with detailed and informative discussion of your works' outputs.

All to all, I reject the manuscript at this step but highly recommend its resubmission after the corrections done.

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Interactive comment on SOIL Discuss., <https://doi.org/10.5194/soil-2019-48>, 2019.

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