

Table 1: Mean performance in the copy-spelling task

	10 Sequences	5 Sequences	3 Sequences
High vs None	87.5%	70.8%	45.8%
High vs Low	83.3%	75%	50%
High vs Medium	83.3%	70.8%	50%

4 Discussion

These preliminary results suggest that spatial masking (**High vs Low**) might have a beneficial effect as it reduced the required number of sequences to reach 100% classification accuracy below that of the default setup (**High vs None**). However no performance difference could be observed in the copy-spelling task for this limited sample. Due to stimulation artifacts a direct comparison between the ERPs of **High vs None** and **High vs Low** condition was difficult. The Source of the artefacts was identified as an unintended flow of current between tactors and skin and will be eliminated for future studies. More data is needed to verify whether tactual masking provides beneficial effects on target or non-target ERPs. Spatial masking is only one out of a multitude of different spatial, temporal and spatio-temporal effects relevant for tactile stimulation [5]. Further research is needed to assess whether additional effects such as apparent location [4], temporal summation [6] and tactile illusions [2] have to be circumvented when designing a tactile BCI or might even prove to be useful for good control of a BCI driven application.

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