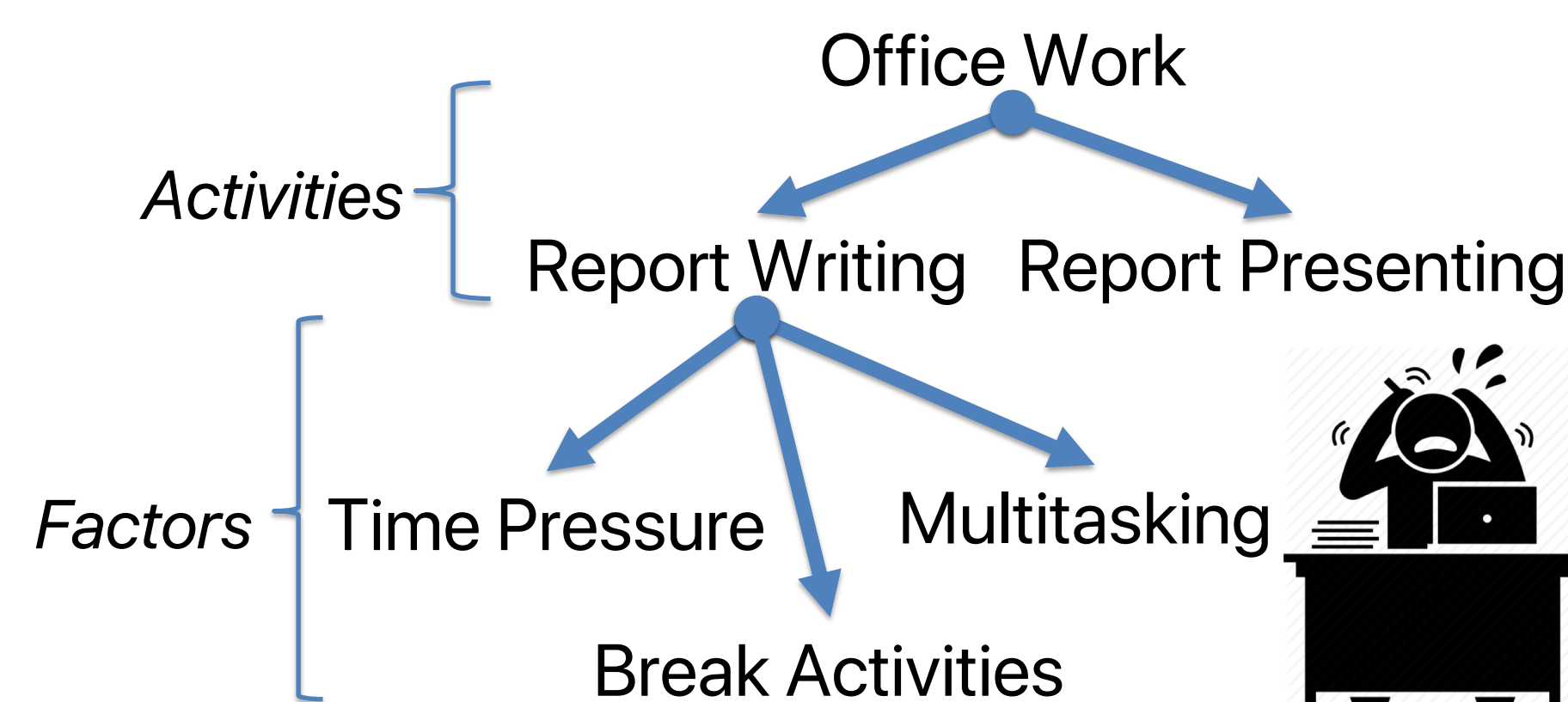


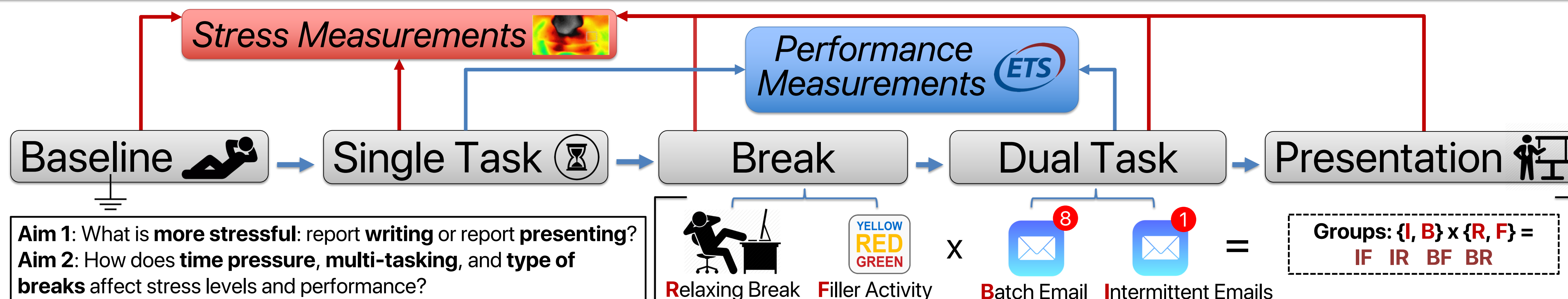
To Multitask or Not To Multitask... Before Taking the Stand!

Nathan Cooper Jones, Shaila Zaman, Amanveer Wesley, and Ioannis Pavlidis
Computational Physiology Lab, Department of Computer Science, University of Houston, Houston, TX, 77004

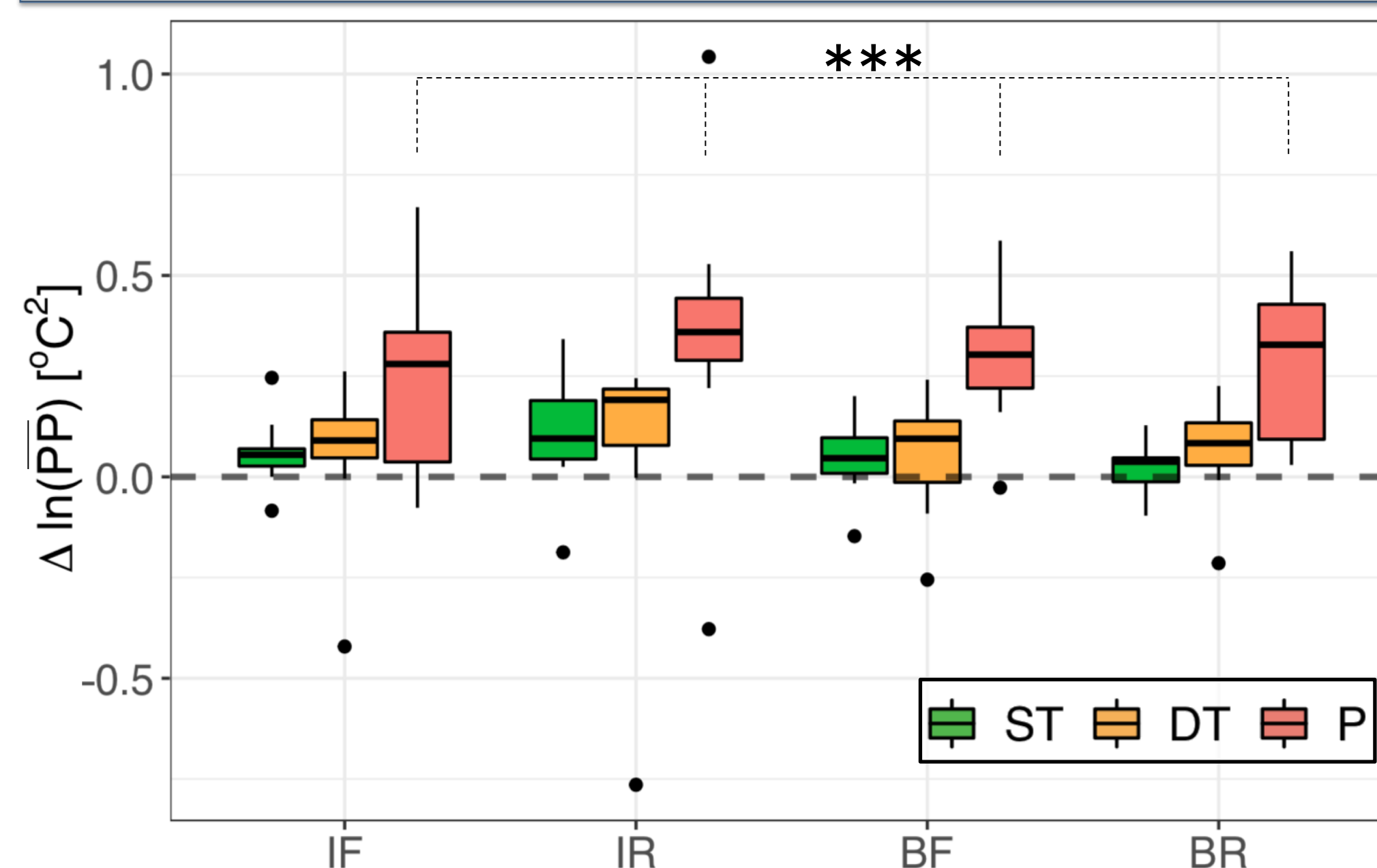
Framework



Experimental Design

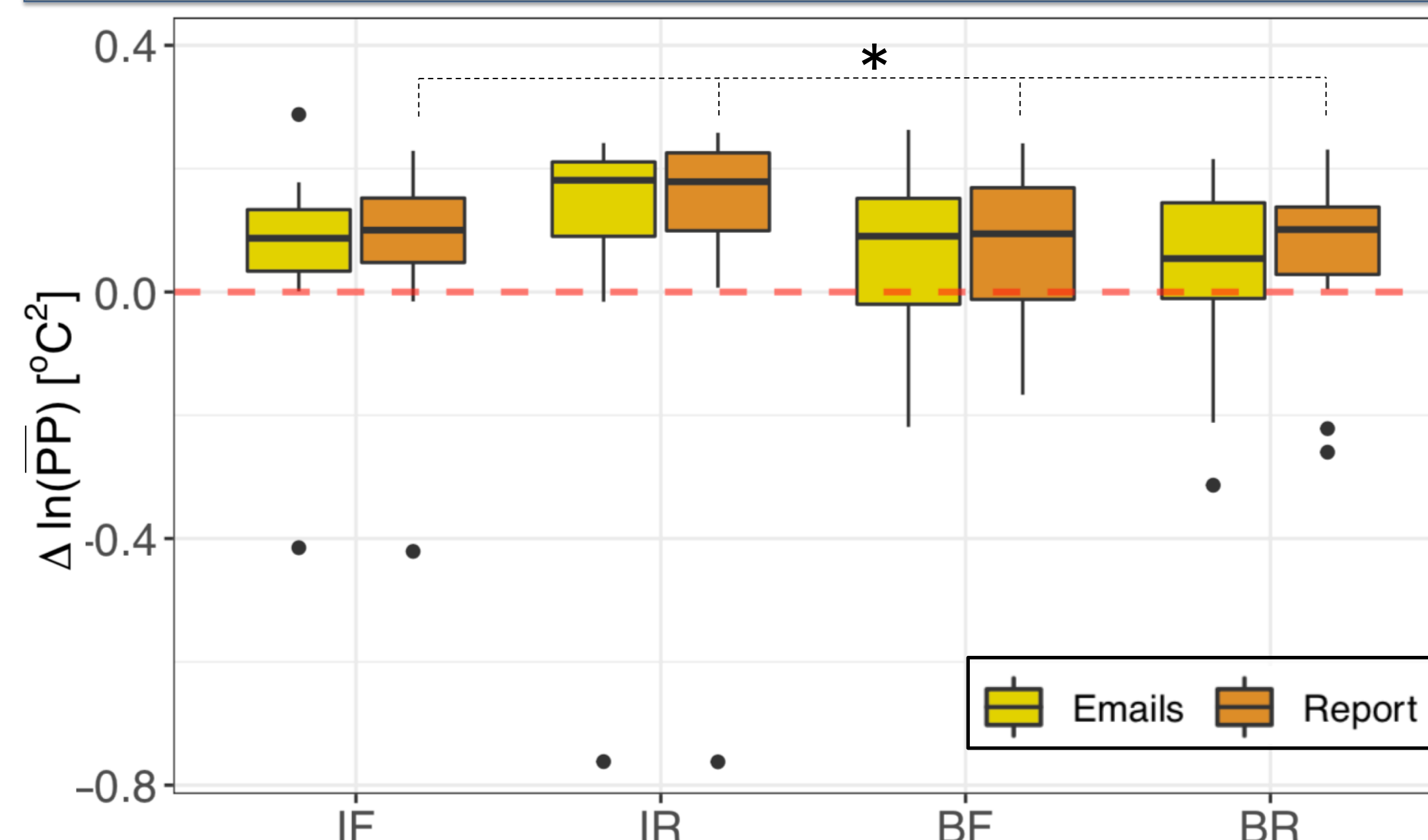


Stress Levels Across Office Activities



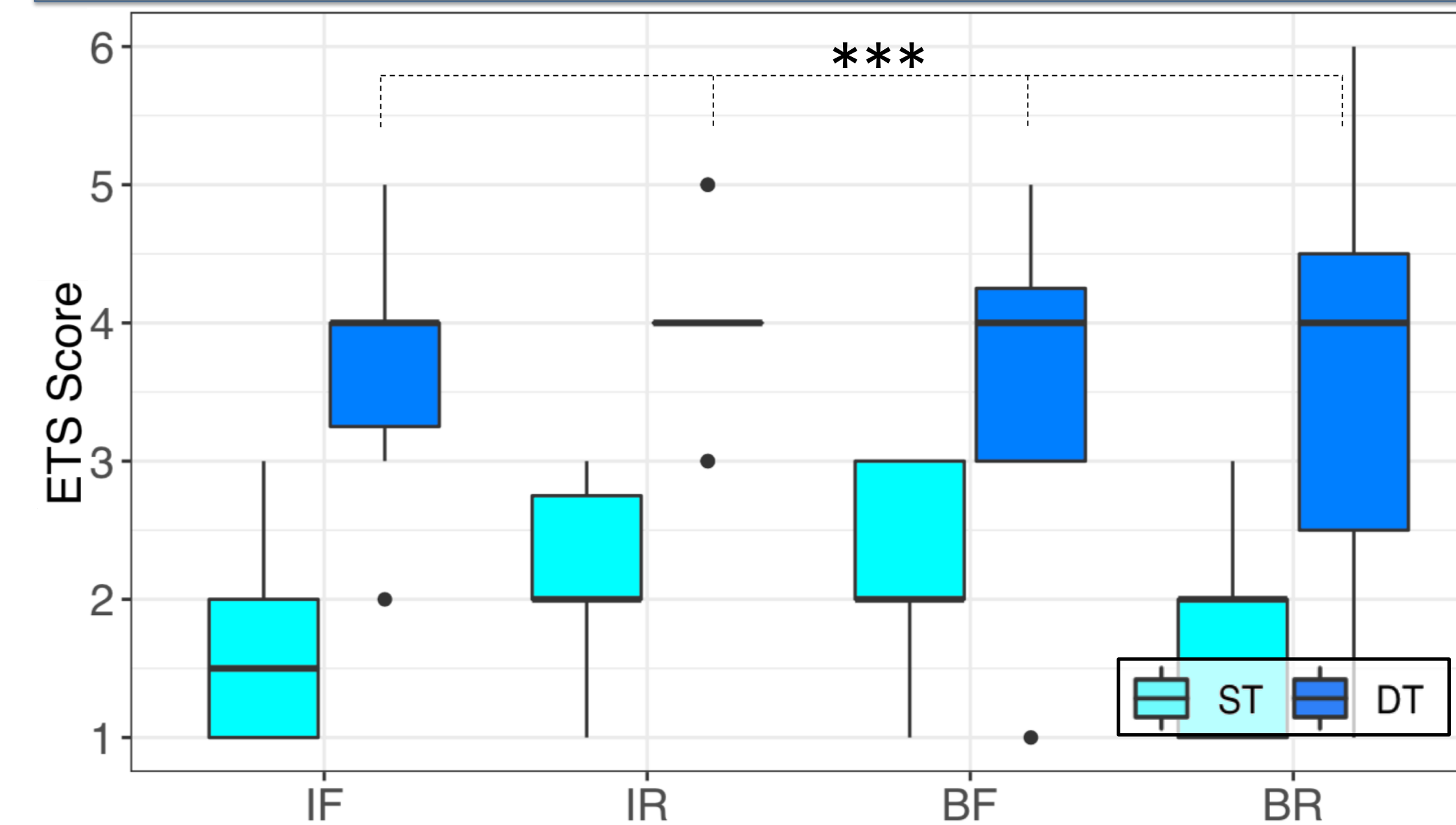
$$\Delta \ln(\bar{PP}) = 1 + Group + Activity + 1|Subject$$

Stress Levels Within Dual Task



$$\Delta \ln(\bar{PP}) = 1 + Group + DualTask + 1|Subject$$

Writing Quality Across Tasks

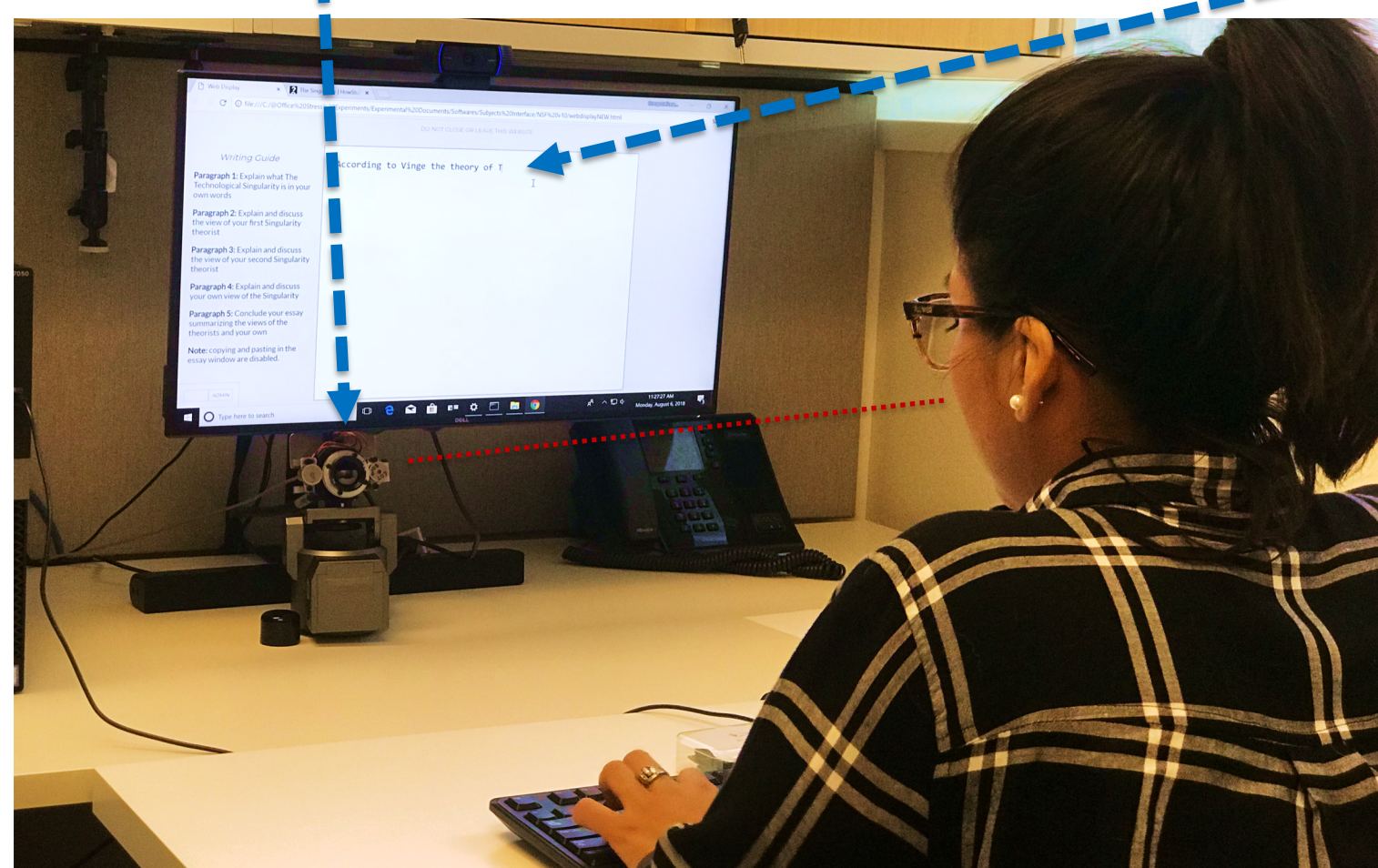


$$WritingQuality = 1 + Group + Session + 1|Subject$$

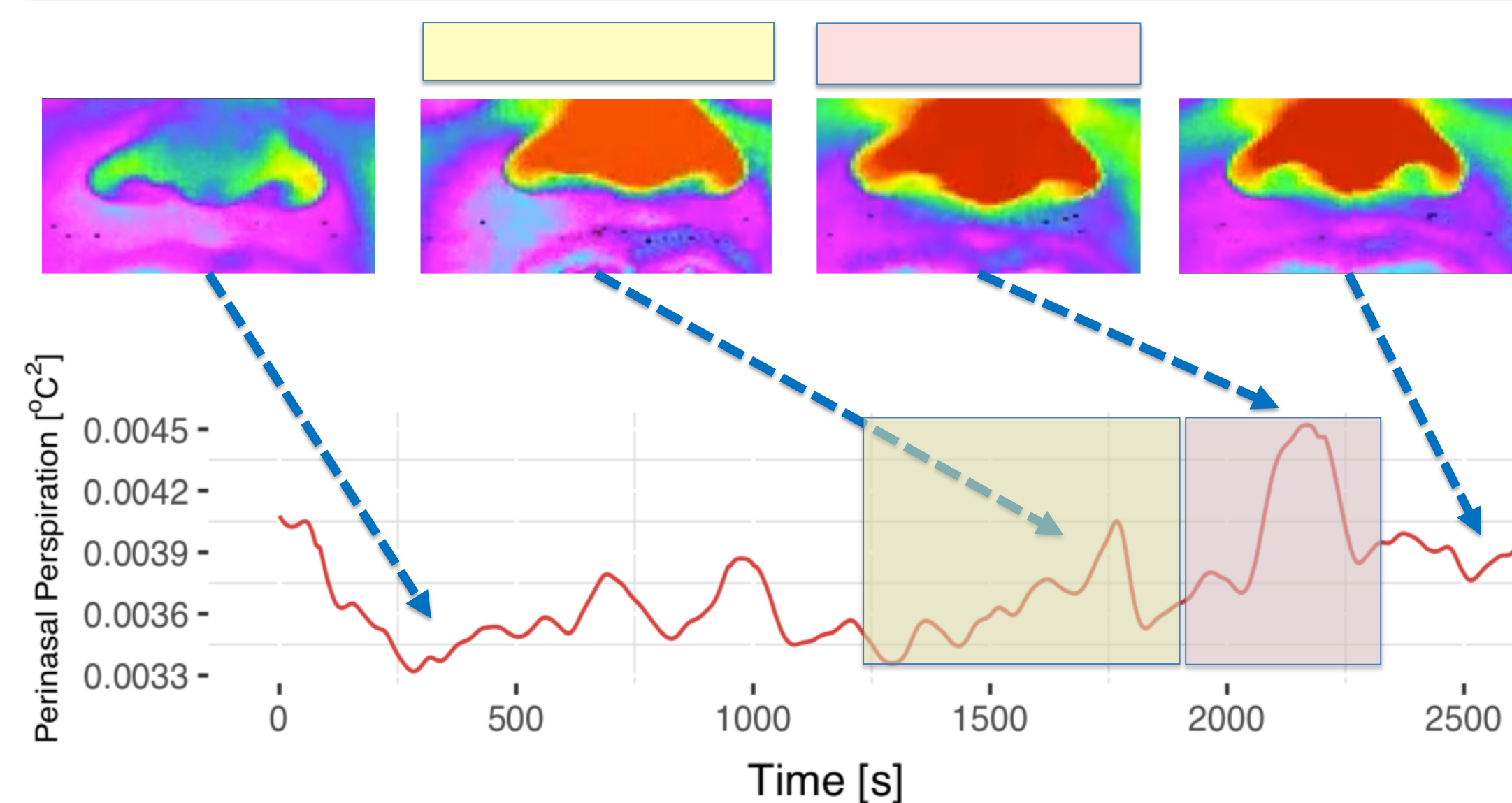
Experimental Setup

Thermal Facial Cam measures stress via Perinasal Perspiration (PP)

Report Scoring via ETS® Services



Methods



Conclusions

- Report presentation is more stressful than report writing.
- Writing under **time pressure** is as stressful as multitasking without time pressure.
- Time pressure significantly degrades writing quality.**
- Multitasking**, given ample time, **does not** degrade writing quality.

★ Hence, to address the title, **yes**, you can multitask, if you have the time. As for the stand... well, good luck!



Acknowledgments

- [1] NSF grant CHS # IIS-1704682 (UH CPL + A&M PSI + UCI DI)
[2] NSF REU # IIS- 1659755