

Validation of Macro Button Toolbar System for Radiology Report Composition



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Introduction

The continued increase in imaging volume, decreases in payor reimbursements, and a declining radiologist workforce (Henderson, 2022) (Fleishon, 2022) (Maskell, 2022) necessitated the development of a faster way to compose high quality reports.

Toolbar System

- Interactive toolbars contain macro buttons that deposit text from reference guidelines straight to the report template.
- Reference toolbars include buttons for quick access to images and information radiologists need to complete the report.
- The goal of the toolbar system for report composition is to speed up report turnaround time while also improving quality and reducing radiologist fatigue.

Methods

- Daily work RVU for 8 full-time radiologists was compiled from an 18-month time frame spanning January 2022 through June 2023.
- Information for 404 complete reports were collected from eight unique radiologists.
- Observed radiologists were categorized into three groups based on their toolbar usage: low, moderate, and high users. The categorization was done based on the methodology of completing an X-ray report.

Results

- 29% increase in radiologist wRVU productivity with high usage of an advanced macro-button template tool.
- 52.6% decrease in X-ray report completion time with high usage of advanced macro-button templates.

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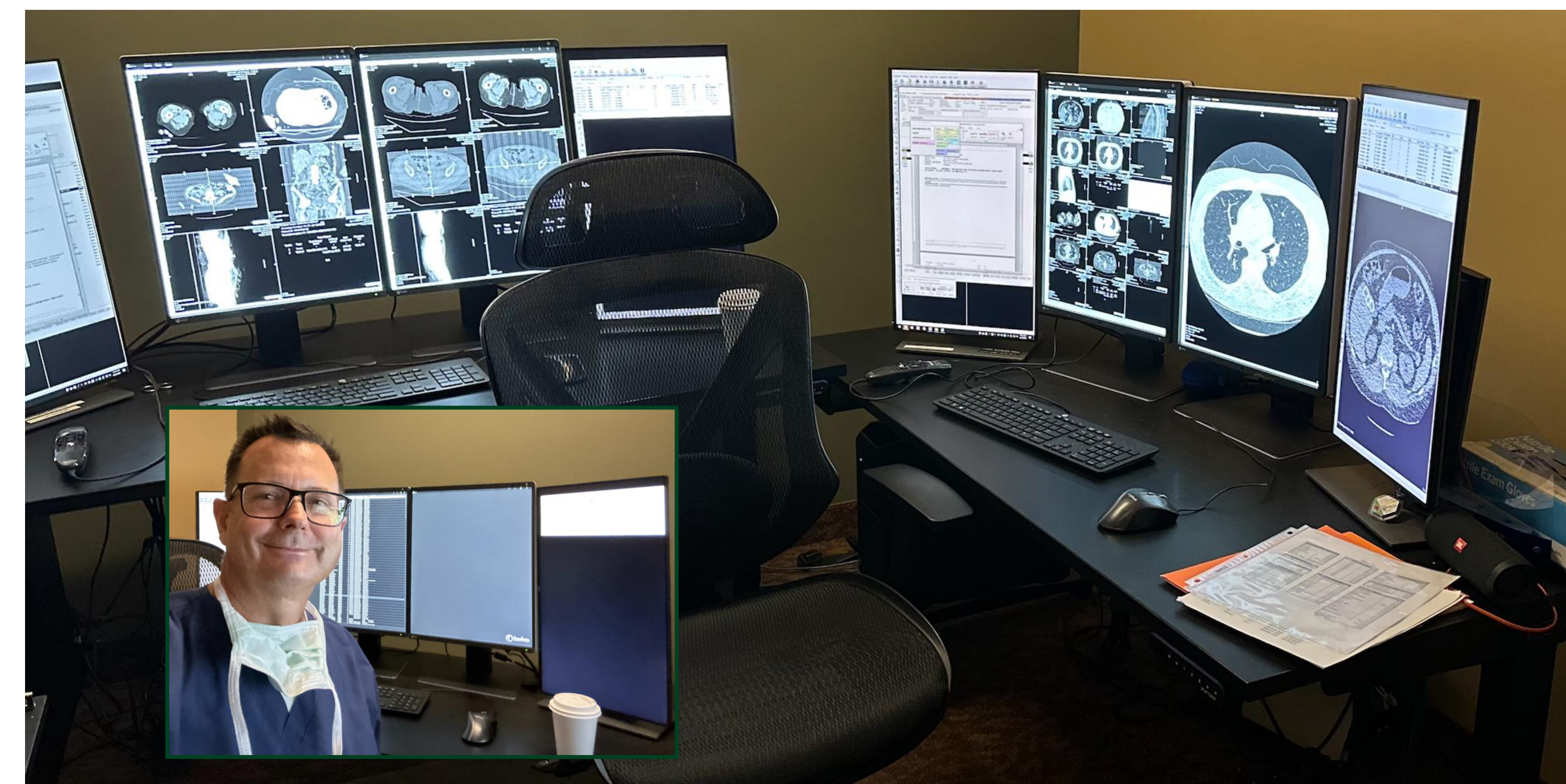
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Big Idea:

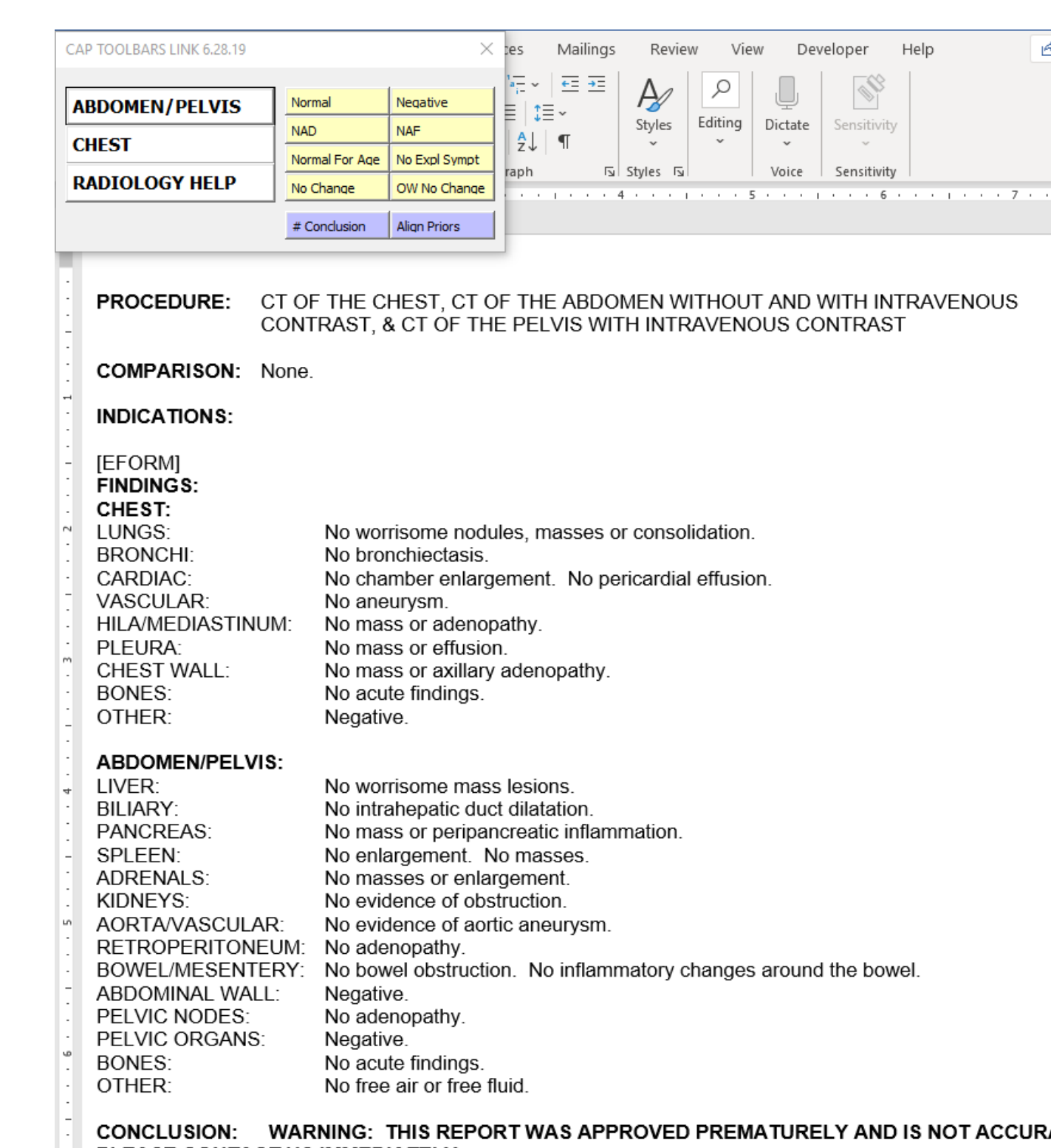
High usage of macro button toolbar system over voice recognition for radiology report composition improves radiologist productivity.

Radiology Reporting Workstation



Macro Button Toolbar Example and Radiologist Report Sample

NEGATIVE Conclusion:			NEGATIVE Findings and Conclusion:			NEGATIVE At Cursor:		
Normal	Negative		Neo Trauma Abd/Pel	Neo Abscess	NI Appendix	Gastric Bypass	No Change	No Other Change
NAD	NAF		Neo Trauma CAP	Neo Hematuria	No Appendix Seen	Normal Appendix	No Enhancement	Unremarkable
Normal For Age	No Exp Sympt		Neo Trauma Chest	Neo Hydronephrosis	Neo Diverticulitis			
No Change	OW No Change		Neo Obst Uropathy	Neo NV				



Report Completion Time for XR Exams

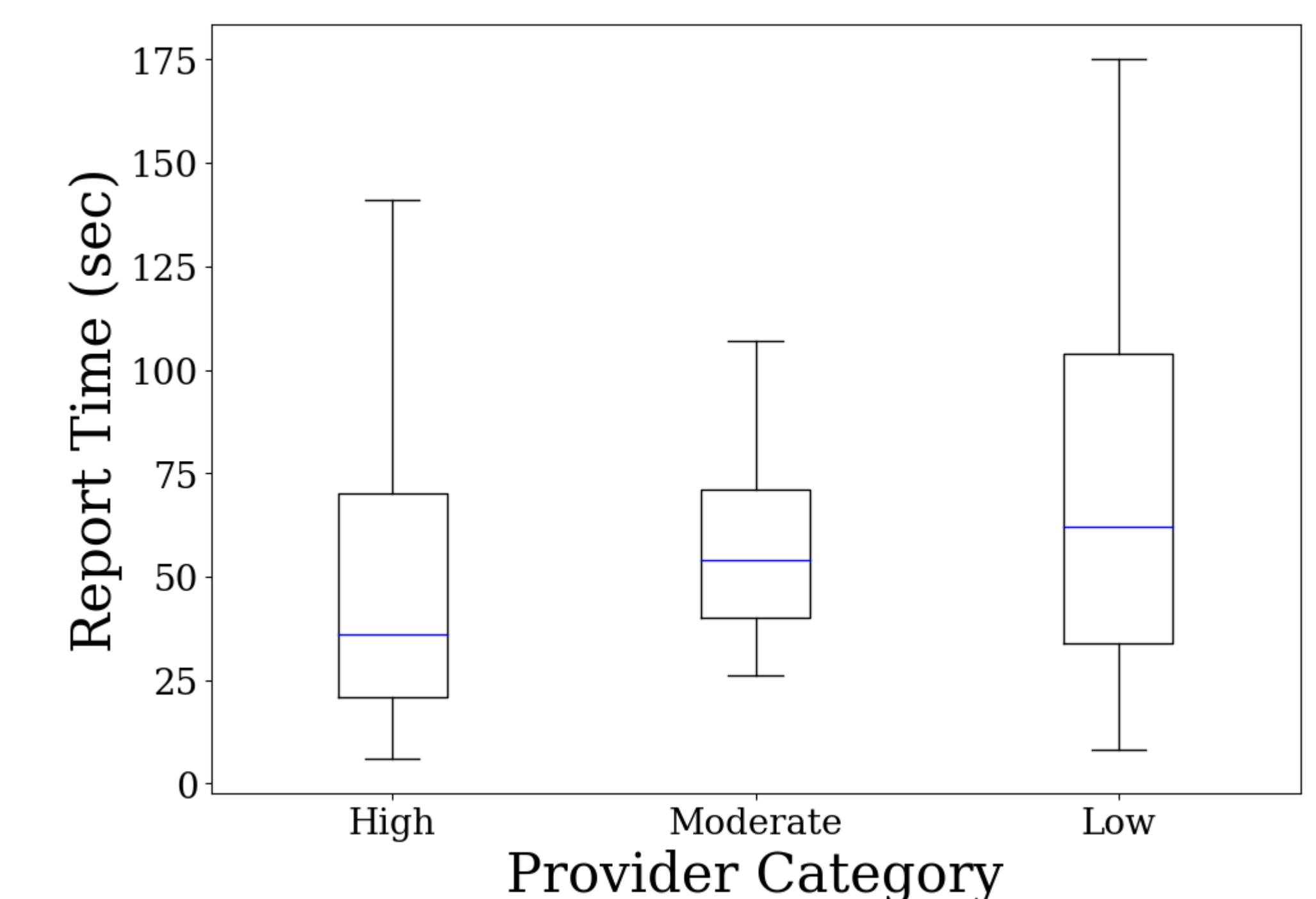


Chart 1: Comparison of report completion time between radiologist toolbar usage groups

Daily wRVUs (Jan 2022 – June 2023)

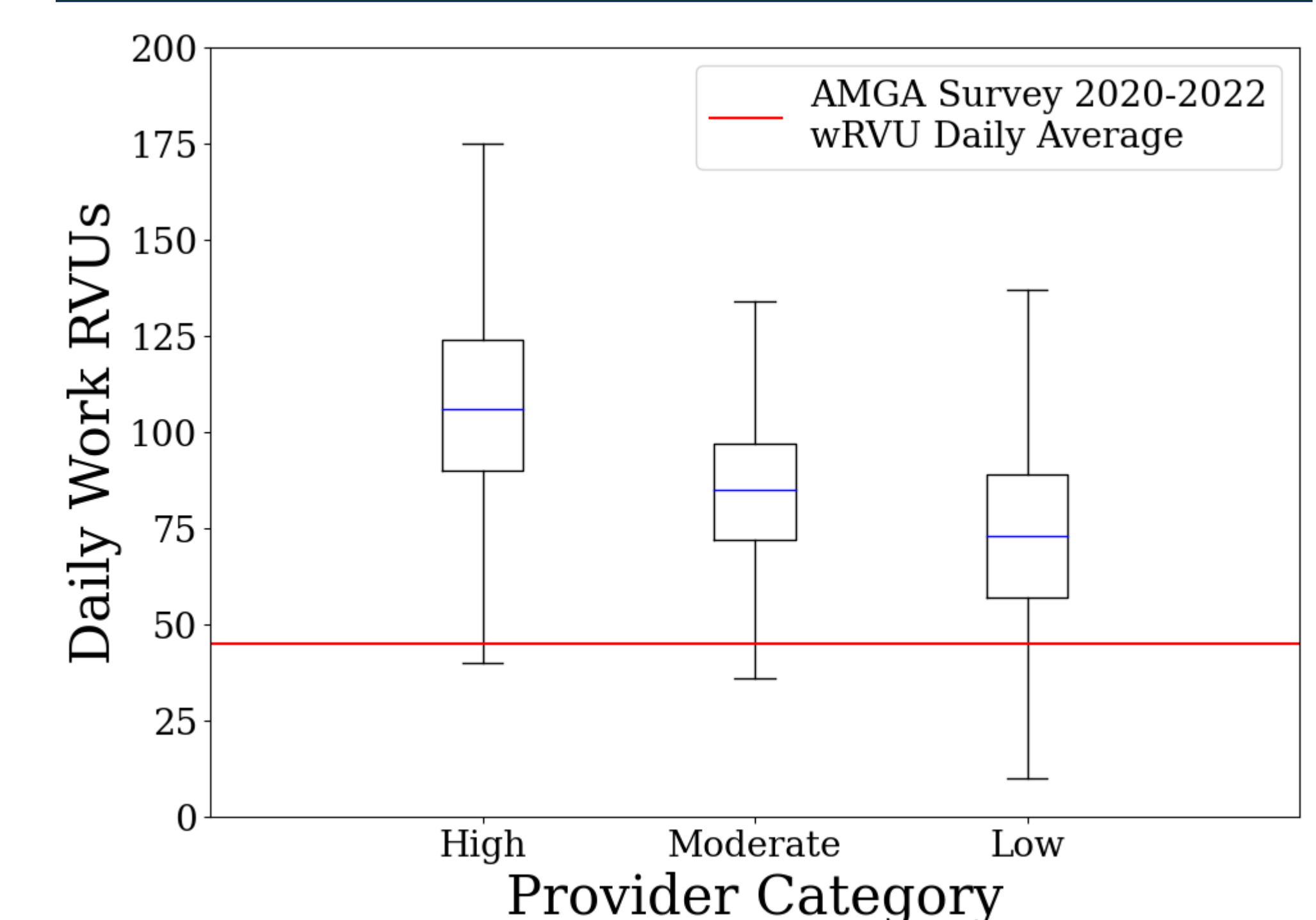


Chart 2: Comparison of daily wRVU productivity between radiologist toolbar usage groups