



Faculty Participation and Perceptions in a Novel Human Factors Directed Resident Evaluation Tool



UNIVERSITY OF
ROCHESTER
MEDICAL CENTER

Nobay F, Squires M, Fairbanks RJ, Shah MN
University of Rochester, Rochester, NY

Objectives

To compare usage rates of a pre-existing commercial evaluation system with a human factors designed resident evaluation system called Helmet Fire. To explore provider preferences regarding the usability of the two systems.

Background

EM resident shift evaluations are critical in assessing performance, yet attending physicians have notoriously poor rates of evaluation completion. Multiple barriers exist in obtaining these evaluations.

Introduction

We implemented the Helmet Fire system in order to address the obstacles to obtaining higher resident evaluation completion rates. This system incorporates key human factors design elements including:

- Centrally located touch-screen kiosks
- Easy to use and fast interface
- Improved competency-based evaluation taxonomy
- An active feedback loop for evaluators

Methods

A four month pilot of the resident evaluation system was designed to compare Helmet Fire usage rates to usage rates of our traditional evaluation system. Users (all faculty attendings) were surveyed to assess perceptions regarding:

- User-centered design and feedback loop
- Administrative responsiveness to evaluations
- Preferences for Helmet Fire in comparison to the traditional system

Results

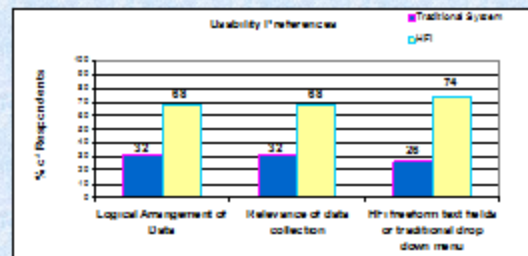
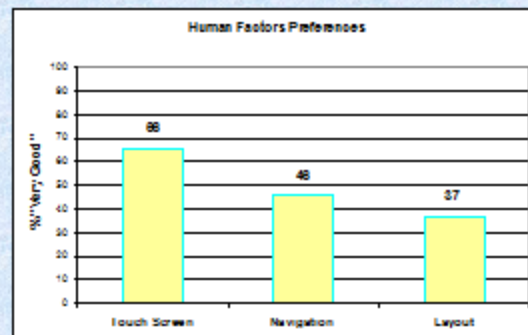
Usage Analysis:

- 262 Helmet Fire resident evaluations generated vs 142 for traditional system during same period one year earlier
- 85% increase

Survey Analysis:

- 31 of 45 surveys returned (69%)
- 76% of users stated Helmet Fire was superior to the traditional evaluation system
- 87% of users stated each evaluation took ≤ 3 min (actual mean session 2min 20 sec)
- 63% of users preferred the on-site evaluation function over the traditional e-mail request system

Results



Discussion

- Helmet Fire was highly successful at increasing the number of resident evaluations in our ED.
 - This increase may be due to the human factors engineered design of the system combined with the feedback loop
- The vast majority of faculty preferred Helmet Fire's system to the traditional system
 - Possibly due to the accessibility, immediacy of input, ease of input design, and persistent feedback loop

Limitations

- This pilot was limited to a specific practice environment
- Limited time frame
- Further studies are needed to determine whether this improvement is sustainable

Conclusions

- Resident evaluation systems designed with human factors considerations may have a significant advantage over traditional systems
- Given the participation rate and perceptions of the Helmet Fire system among EM faculty, this system has the potential to significantly improve the collection of resident evaluations
- We believe preference for Helmet Fire was related to ease of use, system availability and feedback