**Evaluating an information pane to place task-relevant information**

**Abstract**

Data entry workers have to divide their attention between entering data and retrieving this from various sources. They group information on paper sources, but this is more difficult for digital sources. If they always need the same information and know it is going to take a long time to access some of the sources, they learn to leave these until the end. However, participants do not always know they need information until they have started a task, and furthermore do not know how long it is going to take to access it and so interrupt their task as soon as they know they need something. Interruptions mid-task to retrieve information can be disruptive.

This study investigates whether a task pane to keep track of information needed for a data entry task reduces the number of switches away from the task interface, and makes people more efficient in completing a data entry task.

INTRODUCTION

The aim of this study is to investigate whether people make fewer interruptions and are more efficient in completing a data entry task, when they have an information pane to keep track of information they need.

METHOD

Participants

Thirty participants (x male) aged y-z (M =, SD = ) took part in the study. The study took approximately 45 minutes, and participants were reimbursed with £7.50 for their time.

Design

Participants had to complete 50 data entry tasks, and for each task had to enter 2 data items, which had to be retrieved from other windows (see Figures 1-5). The data entry form consists of four fields: a price, date, account code and project code. For each task, two of these were already filled in, and two had to be retrieved from other pages. It differed each trial which items had to be entered.

The study was a mixed design. The presence or absence of a 2-s delay after clicking the links was manipulated within-subjects and counterbalanced. In the Low-IAC condition, there were no delays in opening the windows. In the High-IAC condition, there would be a delay after clicking any one of the pages.

The between-participants variable was the presence of an information pane: *no information pane* (NIP), *information pane* (IP) and *second screen pane* (SSP). In the NIP condition, participants had no information pane and had to remember the information they needed. In the IP condition, participants had an information pane on the same screen as the data entry interface. When switching away from the data entry interface to look up information, this pane was not/still? visible. In the SSP condition, participants had the information pane permanently on a second screen.

The number of interruptions were measured for each condition. Furthermore, for the TP and SSP conditions, it was measured if and when people wrote down an information need to address later. For each condition, the task completion time and data entry errors were measured.

Lastly, the timing of interruptions was logged to get an insight into people’s switching strategies, and see whether participants looked up information the moment they needed it, or if they deferred it until later. After the experiment, people were interviewed shortly and asked about their strategies.

IV: IAC (within-participants), information pane (between-participants)  
DV: number and timing of window switches, [number of entries in pane], time, errors

The hypotheses are:

1. Participants will make fewer interruptions in the IP and SSP conditions than the NIP condition.
2. Participants will make fewer interruptions for High-IAC items than Low-IAC items.
3. Participants will write down more items in the High-IAC condition than the Low-IAC condition.
4. Participants will write down more in the IP than the SSP condition.

## Materials

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*Figure 1. The user has to look up and enter 2 out of 4 items from other windows. The items to enter differ per task.*