



Contents lists available at SciVerse ScienceDirect

# Personality and Individual Differences

journal homepage: [www.elsevier.com/locate/paid](http://www.elsevier.com/locate/paid)

## On-line questionnaire completion time and personality test scores

Adrian Furnham<sup>a,\*</sup>, Gillian Hyde<sup>b</sup>, Geoff Trickey<sup>b</sup><sup>a</sup> Department of Clinical, Educational, and Health Psychology, University College London, London WC1H 0AP, United Kingdom<sup>b</sup> PCL, Tunbridge-Wells TN4 8AS, United Kingdom

### ARTICLE INFO

#### Article history:

Received 16 July 2012

Received in revised form 23 November 2012

Accepted 28 November 2012

Available online 3 January 2013

#### Keywords:

Response time

Questionnaires

Bright and dark side traits

### ABSTRACT

Participants completed two well established questionnaires on line (HPI: Hogan Personality Inventory; and the HDS: Hogan Developmental Survey). Time taken to complete each study was correlated with scale scores from both questionnaires including the occupational scales derived from the HPI. Those who scored higher on Adjustment (Stability), and Prudence (Conscientiousness) but lower on Learning Approach took longer to complete the test. Those who scored higher on Stress Tolerance and Reliability took significantly longer than those with low scores on these measures. With only the exception of Diligent and Dutiful all correlations between Dark Side variables and time taken were negative, particularly Leisurely, Excitable and Imaginative. Regression showed that up to 6% of the time taken variance could be accounted for. Implications for measurement were considered.

© 2012 Elsevier Ltd. All rights reserved.

### 1. Introduction

Until relatively recently most people completed questionnaires of all types by pen, pencil and paper. However, there has been a shift to online assessment which offers certain economic and computational advantages (Merten & Ruch, 1996; Merten & Siebert, 1997). It can also offer the opportunity to measure *how long* people take to complete a questionnaire.

Completion time has been of interest to pollsters. They are primarily interested in the demographics of people and how the nature of the questions affects response time. Bassili and Fletcher (1991) found that response time to a telephone administered questionnaire was a function of the type of question asked. People responded fastest to simple, then complex factual questions. They took longer to answer social judgement questions and even longer for value conflict questions. Malhotra (2008) examined education differences in completion time to web surveys. He found low education respondents who filled out the questionnaire most quickly were most prone to primacy effects when faced with uni-polar rating scales.

Psychological studies on correlates of response speed to questionnaires however preceded electronic administrations. Thus Molto, Segarra, and Avila (1993) divided students into two groups (fasts and slows) by the time they took to complete the Eysenck Personality Scale (EPQ). As predicted the fast group (both males and females analysed separately) scored higher on impulsivity and extraversion. That is, it was argued that the way they filled in the questionnaire reflected their underlying personality traits.

There is a considerable and important literature on mental speed and processing reviewed by Jensen (2006). As all intelligence tests are timed, speed of response is fundamental as a criterion in that area. However personality researchers have shown much less interest in time taken to complete preference tests.

In a series of studies Furnham and colleagues studied correlates of the time taken to complete the 420 item Eysenck Personality Profiler (EPP). Furnham, Forde, and Cotter (1998a) looked at the time taken to complete the Eysenck Personality Profile in over 900 New Zealand based employees. They found associations between time taken and both scores at the domain and facet level. The amount of total time taken to complete the EPP was significantly correlated with Extraversion and Psychoticism: Introverts and those scoring low on Psychoticism took longer. Two primary factors from Extraversion were correlated with time taken – Inhibited and Submissive people took longer. Predictably, the Obsessive primary factor from the Neuroticism superfactor correlated with time taken – the more Obsessive one is, the longer one takes. Five of the seven primary factors from the Psychoticism superfactor were correlated with time taken, one negatively. They showed that the more Careful, Controlled, Responsible, Unadventurous and Practical subjects were, the significantly longer they took to complete the questionnaire.

In a second study Furnham, Forde, and Cotter (1998b) found the time taken to complete the EPP test correlated negatively with two brief intelligence tests. Baddeley Reasoning Test  $r = -.35$ , Wonderlic  $r = -.18$ ;  $N = 233$ ). Furnham, Forde, and Ferarri (1999) found a significant negative correlation ( $r = -.12$ ) between time taken on the test and a preference for *Motivator* as opposed to *Hygiene* factors in a work motivation questionnaire. Finally Furnham, Jackson, Forde, and Cotter (2001) examined the relationship between time taken to complete the EPP and scores on two other personality

\* Corresponding author.

E-mail address: [a.furnham@ucl.ac.uk](mailto:a.furnham@ucl.ac.uk) (A. Furnham).