

## TEMPORAL STABILITY OF THE FRANCIS SCALE OF ATTITUDE TOWARD CHRISTIANITY AMONG 9- TO 11- YEAR-OLD ENGLISH CHILDREN: TEST-RETEST DATA OVER SIX WEEKS

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Recently the test-retest reliability of the Francis Scale of Attitude toward Christianity has been reported in 2 studies; however, these studies were limited to samples of university students. In this study we examined the temporal stability of both the 24- and 7-item versions of the junior version of the Francis Scale of Attitude toward Christianity (Francis, 1978; Francis, Greer, & Gibson, 1991) over a 6-week period among a sample of 58 English children aged between 9 and 11 years old. Data demonstrated that stability across the two administrations was very high for both the 24- ( $r = .74$ ) and 7-item ( $r = .67$ ) versions, and there was no significant change between Time 1 and Time 2 for either version. These data support the short-term test-retest reliability of both the 24- and 7-item versions of the junior version of the Francis Scale of Attitude toward Christianity among children.

*Keywords:* religion, attitude toward Christianity, children, temporal stability, internal consistency, reliability.

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Although a large body of research has examined the psychometric properties of both the 24- and 7-item versions of the Francis Scale of Attitude toward Christianity, using both junior (Francis, 1978; Francis, Greer, & Gibson, 1991) and adult forms of the measures (Francis, 1993a; Francis & Stubbs, 1987), surprisingly little information has been reported relating to temporal stability of the measure (see Francis, 1993b; Kay & Francis, 1996). Within the psychology of religion, "Test-retest reliabilities are not common in this area, despite their obvious value in identifying stable scores over time" (Hill & Hood, 1999, p. 7). There are, however, a small number of studies that have investigated test-retest reliability of various measures in the area (see e.g., Holland et al., 1998; Sherman et al., 2001; Storch, Strawser, & Storch, 2004; Worthington et al., 2003).

Recently two studies have reported on the test-retest reliability of the adult form of the Francis Scale of Attitude toward Christianity. Lewis, Cruise, and McGuckin (2005) reported a test-retest reliability of .92 for the 7-item version of the Francis Scale of Attitude toward Christianity over a one-week test period among a sample of 39 Northern Irish university students, while McGuckin, Cruise, and Lewis (in press) reported test-retest reliability of .95 for the 24-item and .94 for the 7-item version of the Francis Scale of Attitude toward Christianity over a five-week test period among a sample of 114 Irish university students.

However, these authors stress the need for further research on the stability of the measure among different samples. In order to examine whether or not the temporal stability of the Francis Scale of Attitude toward Christianity previously established among adults is also found among a younger sample, the aim in this study was to evaluate the temporal stability of both the 24- and 7-item versions of the junior version of the Francis Scale of Attitude toward Christianity over a 6-week test-retest period among a sample of 9- to 11-year-old English children.

## METHOD

### PARTICIPANTS

The sample was composed of 58 school children aged between 9 and 11 years old (30 males and 28 females), in attendance at a church-affiliated school in England. Of these, 31 were in Year 5 (13 males and 18 females) and 27 were in Year 6 (17 males and 10 females).

### MEASURE

The junior version of the Francis Scale of Attitude toward Christianity (Francis et al., 1991) is a self-report measure of attitude toward Christianity concerned with attitudes to topics including the Bible, prayer, church, God, and Jesus. It is scored on a 5-point scale ranging from *agree strongly* (5) through *uncertain* (3)

to *disagree strongly* (1). Sample questions include “I know that Jesus helps me” and “I think the Bible is out of date” (reverse scored). The 24-item junior form differs slightly from the adult version with respect to minor modification of two items in the junior form referring directly to religion within a school environment (junior: “I like school lessons about God very much”, adult: “I like to learn about God very much”; junior: “I think saying prayers in school does no good”, adult: “I think saying prayers does no good”). Neither of these items appears in the 7-item version. Scores on the 24-item version can range from 24 to 120, and on the 7-item version from 7 to 35, with higher scores on the scales indicating a more positive attitude toward Christianity. The 7 items of the short-form are embedded within the 24-item version. The short-form is intended to be a replacement for the 24-item version when administration time or space is short (Francis et al., 1991).

### PROCEDURE

The 24-item junior version of the Francis Scale of Attitude toward Christianity was completed during class time on two occasions separated by a six-week period. On both occasions the 24 items were administered in the same order and format. Participants recorded their name, age, and gender but were assured of confidentiality, and were told that participation was voluntary. Informed consent was obtained from the Principal of the school acting in loco parentis. The participants were not informed that the measure would be readministered.

### RESULTS

Table 1 contains the descriptive statistics, reliability estimates, and stability estimates of both the 24-item and 7-item versions of the junior version of the Francis Scale of Attitude toward Christianity. For a measure to be considered temporally stable, the correlation between scores from two test periods should ideally exceed .80 (Kline, 2000). At the two testing times separated by six weeks, scores on the scale were highly associated, with both versions of the scale approaching the criteria suggested by Kline. No significant differences were found in the mean scores between Time 1 and Time 2 for either the 24-item or 7-item versions of the scale. Mean scale scores were above the scale midpoint, indicating that the sample had a positive attitude toward Christianity. Satisfactory levels of internal reliability (Cronbach, 1951) were found for both the 24- and 7-item versions of the scale at both Time 1 and Time 2.

**TABLE 1**  
**RESULTS FOR BOTH TIME 1 AND TIME 2 TESTING PERIODS**

Measure	Time 1		Time 2		<i>r</i>	<i>t</i>
	Alpha	<i>M</i> ( <i>SD</i> )	Alpha	<i>M</i> ( <i>SD</i> )		
24-item	.91	91.76 (12.26)	.94	92.28 (13.19)	.74***	-.429
7-item	.73	26.83 (3.88)	.78	26.95 (3.96)	.67***	-.289

Note: \*\*\*  $p < .001$

## DISCUSSION

These data provide evidence of the test-retest reliability over a six-week period of both the 24- and 7-item versions of the junior version of the Francis Scale of Attitude toward Christianity among a sample of English school children. These findings are in line with those reported by both Lewis et al. (2005) with the 7-item version over a 1-week period among Northern Irish university students, and by McGuckin et al. (in press) with both the 24- and 7-item versions over a five-week period among Irish university students. In addition, these findings are in line with those reported for related religiosity measures (e.g., Holland et al., 1998; Sherman et al., 2001; Storch et al., 2004; Worthington et al., 2003). Furthermore, satisfactory levels of internal reliability for both the 24- and 7-item versions of the junior version of the Francis Scale of Attitude toward Christianity were also consistent with previous research with these measures among samples of children (e.g., Francis & Stubbs, 1987; Francis et al., 1991).

Further research is required to examine the stability of the junior version of the Francis Scale of Attitude toward Christianity among larger and more representative samples of children, and also over longer testing periods (e.g., over three months; Kline, 2000). While more research is warranted, both the 24- and 7-item versions of the junior version of the Francis Scale of Attitude toward Christianity appear temporally stable among English children.

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