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Assessing student attitude toward Christianity in Church in Wales

primary schools: Does aided status make a difference?

Leslie J. Francis\*

University of Warwick, Coventry, UK

David W. Lankshear

University of Warwick, Coventry, UK

Emma L. Eccles

Bishop Grosseteste University, Lincoln, UK

Author note:

\*Corresponding author:

Leslie J. Francis

Warwick Religions & Education Research Unit

Centre for Education Studies

The University of Warwick

Coventry CV4 7AL United Kingdom

Tel: +44 (0)24 7652 2539

Fax: +44 (0)24 7657 2638

Email: [leslie.francis@warwick.ac.uk](mailto:leslie.francis@warwick.ac.uk)

### **Abstract**

As a consequence of the 1944 Education Act church schools were given the choice of opting for voluntary controlled status or for voluntary aided status. In voluntary aided status the Church had more control but carried greater costs. Within England and Wales this distinction is still maintained. This study measures the attitude toward Christianity of 4,581 year 4, 5 and 6 students (8- to 11-years of age) attending 87 Church in Wales primary schools, and compares the responses of 1,678 students attending controlled schools with the responses of 2,903 students attending aided schools. After controlling for sex, age and frequency of church attendance, voluntary aided status is associated with a more positive attitude toward Christianity. In other words, aided status does make a difference to the attitudinal dimension of students' religiosity.

*Keywords:* church schools, Wales, student attitudes, Francis Scale of Attitude toward Christianity

## Introduction

According to *The Church in Wales Education Review* (Lankshear, 2009), across its six Dioceses of Bangor, Llandaff, Monmouth, St Asaph, St Davids, and Swansea and Brecon, the Church in Wales at that time maintained 168 church primary schools, of which 101 were voluntary controlled, 66 were voluntary aided, and one was a foundation school. The purpose of the present empirical study is to examine whether voluntary aided status exercises a positive impact on students' attitude toward Christianity, compared with voluntary controlled status. First, however, the context needs to be set by examining the historical trajectory of church schools in Wales and the distinction between voluntary aided and voluntary controlled status as established by the Education Act 1944. Second, current thinking about the purpose and rationale of church schools needs to be clarified, drawing on the clear thinking of the Durham Report (1970) and subsequent developments. Third, the empirical project needs to be set within a specific research tradition examining the impact of church schools on students' attitude toward Christianity within England and Wales.

### The historical context

In the late eighteenth and early nineteenth centuries the origins of what was to become the state-maintained system of schools in England and Wales resided in the initiatives of voluntary bodies and the Christian Churches. Of particular significance for the system of Anglican schools during this period was the establishment of the National Society in 1811 (Cruikshank, 1963; Murphy, 1971; Chadwick, 1997). The National Society helped local churches to build schools and from 1833 received grants from the state to distribute for this purpose. No machinery existed to build state-funded schools apart from collaboration with the voluntary societies until the Education Act 1870 established the notion of School Boards (Rich, 1970).

The Education Act 1944 acknowledged the important place of the existing church schools in consolidating and reforming a state-maintained educational system within post-war reconstruction (Dent, 1947). Recognising the Church's difficulty in funding such extensive post-war reconstruction of the educational system, the Education Act 1944 offered church schools a choice between two ways forward. The path of voluntary aided status allowed the Churches to retain basic control over key aspects of school management (including appointing a majority of governors, appointing core staff, and determining religious education provision), but at the cost of on-going financial liability for the buildings. The path of voluntary controlled status allowed the churches to pass all on-going financial liability to the public purse, while still owning the building and having reduced control over aspects of school management (Dent, 1947). While voluntary controlled schools were permitted to retain the denominational character of school worship, they were not permitted to offer denominational religious education (except by way of special provision for those parents who requested it). Voluntary controlled schools were to follow the religious education defined by the Local Agreed Syllabus in the same way as schools without a religious tradition.

### **The rationale for church schools**

The nature of the Anglican Church's involvement within the state-maintained sector of schools in England and Wales has been (and remains) quite different from that of the Roman Catholic Church. The difference comes as a consequence of the Church of England being the Established Church of the realm, across both England and Wales in 1811 when the National Society came into being, although disestablished in Wales from 1920. The clearest understanding of the Church of England's involvement in the system of state-maintained schools remains in the Durham Report (1970). This report clearly distinguishes between the two distinctive objectives of the Established Church in the provision of schools. The first objective is defined as the *general* aim, intending to serve the nation through the provision of

education for all. The second objective is defined as the *domestic* aim, intending to serve the children of the Church. The Durham Report (1970) argued that, while in 1811 these two aims may have been closely aligned, by the 1970s the changing nature of society had polarised them. The Durham Report recommended the wisdom of the Church of England prioritising the general aim over the domestic aim, prioritising service of the nation over the nurture of the children of the Church. This view was consistent with a wider view of that time that a clear divide should exist between the educational function of schools and the nurturing function of churches (see Schools Council, 1971; Hirst, 1972; Hull, 1975; British Council of Churches, 1976, 1981).

Subsequent key reports from the Church of England have maintained this key distinction presented by the Durham Report (1970) between the general function and the domestic function of church schools, but suggested different ways of re-tuning the balance between these two functions (Waddington, 1984; Dearing Report, 2001; Chadwick, 2012). The fact that Anglican church schools had their roots in a system designed in the early nineteenth century to provide a parish-based network of schools still means that the majority of Anglican church primary schools in England and Wales are serving single school areas. The majority of students who attend these church schools do so because the schools are for them their neighbourhood school, not because their parents have deliberately chosen to send them to a church school. This situation is consistent with the emphasis placed by the Durham Report (1970) on the *general* educational aim of Anglican schools.

### **The empirical tradition**

While the Durham Report (1970) made it clear that Anglican Church schools in England and Wales were not in business primarily to promote religion in general or Christianity in particular, during the mid-1970s Francis (1979) suggested that it may be a matter of empirical interest to explore whether or not church schools have a measurable

impact on the religiosity of their students. Recognising that, from a scientific perspective, student religiosity is a multi-dimensional construct, Francis suggested that the dimension of religion of greatest interest in this context may be the attitudinal dimension. Following the conceptualisation of attitudes advanced by Fishbein (1963), Francis agreed that attitudes were concerned primarily with the affective dimension of religion (concerned with feelings) as distinct from the cognitive dimension (concerned with beliefs) and from the behavioural dimension (concerned with practices).

In order to access and to operationalise the deep-seated underlying attitudinal response concerned with the affective dimension of religion (favourably toward or negatively against religion), Francis (1978a, 1978b) developed the Francis Scale of Attitude toward Christianity, a 24-item instrument concerned with affective responses to five aspects of the Christian tradition that transcend denominational divisions, namely God, Jesus, Bible, church, and prayer. At the same time, Francis invited colleagues to join with him in building up a secure basis of empirical information regarding the correlates, consequences and antecedents of individual differences in attitude toward Christianity. By agreeing on the use of a common measure, colleagues could be clear that their independent studies fitted together to build an integrated tapestry of research concerning the contributions being made to individual lives of the form of spirituality accessed by the Francis Scale of Attitude toward Christianity. By the mid 1990s, Kay and Francis (1996) were able to draw together around one hundred individual studies employing this instrument. Since then the field has continued to grow.

Initially the tapestry of research constructed by means of studies agreeing on the use of the Francis Scale of Attitude toward Christianity was restricted to the English-speaking world. The second generation of studies conducted within this tradition began to explore the performance of the instrument in translation. In this way it became possible to test whether

the correlates, antecedents and consequences of individual differences in attitude toward Christianity established in an English-speaking world remained consistent within other linguistic communities. A family of studies has now reported on the satisfactory psychometric properties of the Francis Scale of Attitude toward Christianity translated, for example, into Arabic (Munayer, 2000), Czech (Francis, Quesnell, & Lewis, 2010), Chinese (Tiliopolous, Francis, & Jiang, 2013), Dutch (Francis & Hermans, 2000), French (Lewis & Francis, 2003), German (Francis & Kwiran, 1999), Italian (Crea, Baiocco, Ioverno, Buzzi, & Francis, 2014), Greek (Youtika, Joseph, & Diduca, 1999), Norwegian (Francis & Enger, 2002), Portuguese (Ferreira & Neto, 2002), Romanian (Francis, Ispas, Robbins, Ilie, & Iliescol, 2009), Serbian (Flere, Francis, & Robbins, 2011), Slovenian (Flere, Klansjek, Francis, & Robbins, 2008), Spanish (Campo-Arias, Oveido, Dtaz, & Cogollo, 2006), Swedish (Eek, 2001), and Welsh (Evans & Francis, 1996). While the Francis Scale of Attitude toward Christianity has its origins in research conducted during the 1970s (Francis, 1978a, 1978b) a number of subsequent studies conducted with the original English language form of the instrument have continued to support its consistency reliability and construct validity, including work reported by Francis, Lankshear, and Eccles (in press).

The Francis Scale of Attitude toward Christianity has been used in a series of studies examining the potential influence of Anglican schools on students' attitude toward Christianity, including work reported by Francis (1979, 1986, 1987), Francis and Carter (1980), Boyle and Francis (1986), and Swindells, Francis, and Robbins (2010).

### **Research question**

Against this background, the aim of the present study is to make an up-to-date contribution to the ageing literature on the connection between attending Anglican schools in England and Wales and student attitude toward Christianity. The specific research question is whether there is an overall difference in scores of attitude toward Christianity among students

attending Church in Wales voluntary aided primary schools, compared with students attending Church in Wales voluntary controlled primary schools, that could be attributable to the influence of the status of the school. The issue can be explored through three specific research questions. The first research question is a single bivariate question examining the association between scores of attitude toward Christianity and attendance at aided (rather than controlled schools). The second research question recognises that student attitude toward Christianity is also associated with sex, age, and frequency of church attendance, and that the admissions policies of voluntary aided schools may attract a higher proportion of churchgoing students. In order to control for these factors multiple regression modelling can take into account the simultaneous impact of sex, age, church attendance, and attendance at a voluntary aided school. The third research question recognises the autonomy of the Dioceses within the Church in Wales and adds the individual Diocese to the regression model to check whether diocesan policy may have additional impact on student attitude toward Christianity.

## **Method**

### **Procedure**

All Church in Wales voluntary aided and voluntary controlled primary schools throughout all six Dioceses in the Province (Bangor, Llandaff, Monmouth, St Asaph, St Davids, and Swansea and Brecon) were invited to administer the survey to all their year 4, year 5, and year 6 students (8- to 11-years of age) as part of a routine assessment of school ethos during the school year 2015-2016. Responses were received from 87 schools, with the Diocese of Bangor deciding not to participate. This response represents about two thirds of the eligible schools within the five participating Dioceses. Useable responses were received from 1,511 students in year 4, 1,544 students in year 5, and 1,526 students in year 6.

### **Instrument**

The Francis Scale of Attitude toward Christianity is a 24-item Likert instrument, developed originally by Francis (1978a, 1978b), concerned with affective response toward God, Jesus, Bible, prayer, and church. Each item is rated on a five-point scale: agree strongly (5), agree (4), not certain (3), disagree (2), and disagree strongly (1).

Church attendance was assessed on a five-point scale: never (1), once or twice a year (2), sometimes (3), at least once a month (4), and weekly (5).

### **Participants**

Of the total participants, in year 4 there were 762 boys and 749 girls, in year 5 there were 764 boys and 780 girls, and in year 6 there were 768 boys and 758 girls. In terms of worship attendance, 22% never attended church, 15% attended once or twice a year, 35% attended sometimes, 11% attended at least once a month, and 17% attended weekly. Of the 4,581 participants, 1,678 attended controlled schools and 2,903 attended aided schools.

### **Data analysis**

The data were analysed by the SPSS statistical package, using the frequency, reliability, correlation, and regression routines.

### **Results and discussion**

- insert table 1 about here -

The first step in data analysis explores the psychometric properties of the core dependent variable, the Francis Scale of Attitude toward Christianity. Table 1 presents the correlations between each item and the sum of the other 23 items, together with the alpha coefficient (Cronbach, 1951), the factor loading, the first factor of the unrotated solution proposed by principal component analysis, together with the percentage of variance explained by that factor, and the item endorsement as the sum of the agree and agree strongly responses. These statistics suggest the conclusion that the scale is characterised by homogeneity, unidimensionality and internal consistency reliability within the sample. The item

endorsement identify a group of students with an overall positive attitude toward the Christian tradition, with up to three quarters of them believing that God helps people (74%) and that praying is a good thing (76%). Less than a quarter of the students endorse the negative items, with 22% considering church services to be boring and 15% considering saying prayers does no good.

- insert table 2 about here -

The second step in data analysis explores the bivariate correlations between attitude toward Christianity, church attendance, sex, age, and attendance at an aided school. These data are presented in table 1. Sex is a significant predictor of religiosity, with girls reporting both a higher level of church attendance and a more positive attitude toward Christianity than boys. This is consistent with the general finding of higher levels of religiosity among females than among males within Christian and post-Christian societies (see Francis, 1997; Francis & Penny, 2014). School year is a significant predictor of both church attendance and attitude toward Christianity. Consistent with a range of earlier studies there is a significant decline in attitude toward Christianity with increasing age (see Kay & Francis, 1996). On the other hand, in this sample there is a significant increase in church attendance with age. Consistent with previous studies there is a strong positive correlation between church attendance and attitude toward Christianity (see Francis, 2009). The data also show that attending an aided school is associated both with a higher level of church attendance and a more positive attitude toward Christianity. The complex pattern of associations revealed by the correlation matrix emphasises the importance of moving to multivariate analysis in order to clarify the association between attitude scores and attendance at an aided school.

- insert table 3 about here -

The third step in data analysis constructs a series of regression models in order to build up a cumulative picture of the relationship between aided status and student attitude

toward Christianity in Church in Wales primary schools. In model one, two personal variables (sex and age) are regressed on attitude toward Christianity scores. These beta weight confirms the picture derived from the correlation matrix that the higher scores of attitude toward Christianity are associated with being female and with being younger. The additional information conveyed by the regression model is that these two influences are independent and cumulative. Moreover, these relationships remain stable across all four models.

In model two, one religious variable is added (frequency of church attendance). The beta weight confirms that church attendance is an additional predictor of attitude toward Christianity scores after sex and age remain in the equation. The statistics also demonstrate that the additional variance accounted for by church attendance is  $r^2 = .097$ .

In model three, aided status is added. The beta weight demonstrates that aided status is an additional predictor of attitude toward Christianity scores after sex, age, and church attendance remain in the equation (and  $r^2$  increases from .144 to .152). This is an important finding since it demonstrates that, although there is a higher level of church attendance among students attending aided schools and church attendance is itself a predictor of individual differences in attitude scores, after church attendance has been built into the model aided status still accounts for an additional impact on attitude toward Christianity.

In model four, an additional contextual factor is taken into account, namely the Diocese in which the school is located. In this case Llandaff has been taken as the reference point, and Monmouth, St Asaph, St Davids, and Swansea and Breacon have each been entered into the model as a dummy variable. This shows that, when aided status has been taken into account, there is very little difference between the Dioceses, except for a small positive impact from being located in the Diocese of Monmouth.

### **Conclusion**

This study set out to explore whether there was an overall difference in scores of attitude toward Christianity among students attending Church in Wales aided primary schools compared with students attending Church in Wales controlled primary schools that could be attributable to the influence of the status of the school. This research aim was tested among a sample of 4,581 year 4, year 5 and year 6 students within 87 schools drawn from the five Dioceses of Llandaff, Monmouth, St Asaph, St Davids, and Swansea and Breacon (around two-thirds of the Church in Wales schools within those five dioceses) during the school year 2015-2016. Of these 4,581 students, 1,678 attended controlled schools and 2,903 attended aided schools. The research aim gave rise to three specific research questions. The first research question explored the issue from the perspective of bivariate correlational analysis. The second research question recognises the added complexity of the problem and explored the issue from the perspective of linear multiple regression analysis. The third research question extended the multiple regression model to examine whether policies of individual dioceses may further influence the outcome.

In response to the first research question, bivariate correlational analysis demonstrated a significantly higher score of attitude toward Christianity among students in aided schools, but also a significantly higher frequency of church attendance. In view of the significant positive correlation between frequency of church attendance and scores of attitude toward Christianity, the bivariate correlations leave open the question as to whether the higher scores of attitude toward Christianity among students in the aided school sector may be a consequence of higher frequency of church attendance or a consequence of school effectiveness. This question is particularly pertinent given the opportunity for aided schools to include the factor of church attendance within their admissions policy. In other words, aided schools may simply admit a higher proportion of churchgoing students, compared with controlled schools.

In response to the second research question, multiple regression models confirmed the importance of sex, school year, and frequency of church attendance in predicting individual differences in scores of attitude toward Christianity. These models also demonstrated that, when sex, age, and frequency of church attendance are taken into account, aided status adds additional positive predictive power in respect of scores of attitude toward Christianity. In other words, students of the same sex and same school year with the same level of church attendance are likely to hold a more positive attitude toward Christianity if they are attending an aided school.

In response to the third research question, little difference was found among the five participating dioceses, but with the additional finding that schools in the Diocese of Monmouth were associated with a small (but statistically significant) improvement in student attitude toward Christianity.

The fact that aided schools may nurture a more positive attitude toward Christianity among their students compared with controlled schools is consistent with the greater investment that the Church in Wales holds in these schools. This investment is reflected in appointing a higher proportion of the governors, in having a more effective involvement in the appointment of the core staff, like the headteacher, and on the provision of religious education in accordance with the trust deed of the school. If one of the aims and objectives of Anglican schools is to promote a positive view of Christianity these data suggest that aided schools are more effective than controlled schools in promoting this outcome.

There are three limitations with the present study that could be addressed by future research. The first limitation is that one third of the schools in the five participating dioceses did not take part in the study and the sixth diocese within the Church in Wales (Bangor) opted out entirely. Future research may wish to extend the participation rate.

The second limitation is that the survey failed to include any indices of parental church attendance. Studies like Francis and Gibson (1993) have demonstrated the important place of parental church attendance in shaping both church attendance and attitude toward Christianity among their children. If future research were to include measures of parental church attendance these measures would act as important control variables (together with student church attendance) before testing for the impact of aided status.

The third limitation is that the present survey was restricted to Church in Wales primary schools within Wales. An earlier study by Francis (1987) undertook a survey using the same measure of attitude toward Christianity among nearly all the primary schools in Gloucestershire. This study allowed Church of England controlled schools and Church of England aided schools to be set alongside Roman Catholic aided schools and schools without a religious character. If future research of this nature were possible within some of the 22 local authorities within Wales, the data would facilitate a much clearer picture to emerge of the distinctive contributions of Church in Wales controlled schools and Church in Wales aided schools within the total state-maintained primary school provision within Wales.

### References

- Boyle, J. J., & Francis, L. J. (1986). The influence of differing church aided school systems on pupil attitude towards religion. *Research in Education*, 35, 7-12.
- British Council of Churches (1976). *The child in the Church*. London: British Council of Churches.
- British Council of Churches (1981). *Understanding Christian nurture*. London: British Council of Churches.
- Campo-Arias, A., Oviedo, H. C., Dtaz, C. F., & Cogollo, Z. (2006). Internal consistency of a Spanish translation of the Francis Scale of Attitude toward Christianity short form. *Psychological Reports*, 99, 1008-1010. doi.org/10.2466/PR0.99.3.1008-1010
- Chadwick, P. (1997). *Shifting alliances: Church and state in English education*. London: Cassell.
- Chadwick, P. (2012). *The church school of the future*. London: National Society.
- Crea, G., Baioco, R., Ioverno, S., Buzzi, G., & Francis, L. J. (2014). The psychometric properties of the Italian translation of the Francis Scale of Attitude toward Christianity: A study among Catholic adolescents. *Journal of Beliefs and Values*, 35, 118-122. doi.org/10.1080/13617672.2014.884860
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334. doi.org/10.1007/BF02310555
- Cruickshank, M. (1963). *Church and state in English education*. London: Macmillan.
- Dearing Report. (2001). *The way ahead: Church of England schools in the new millennium*. London: Church House Publishing.
- Dent, H. J. (1947). *The Education Act 1944: Provisions, possibilities and some problems* (3rd ed.). London: University of London Press.

- Durham Report. (1970). *The fourth R: The report of the commission on religious education in schools*. London: National Society and SPCK.
- Eek, J. (2001). *Religious facilitation through intense liturgical participation: A quasi-experimental study of Swedish pilgrims to Taizé*. Lund: University of Lund Studies in Psychology of Religion.
- Evans, T. E., & Francis, L. J. (1996). Measuring attitude toward Christianity through the medium of Welsh. In L. J. Francis, W. K. Kay, and W. S. Campbell (Eds.), *Research in religious education* (pp. 279-294). Leominster: Fowler Wright Books.
- Ferreira, V., & Neto, F. (2002). Psychometric properties of the Francis Scale of Attitude toward Christianity among Portuguese university students. *Psychological Reports, 91*, 995-998. doi.org/10.2466/PR0.91.7.995-998
- Fishbein, M. (1963). An investigation of the relationships between beliefs about an object and the attitude toward that object. *Human Relations, 16*, 233-240.  
doi.org/10.1177/001872676301600302
- Flere, S., Francis, L. J., & Robbins, M. (2011). The psychometric properties of the Serbian translation of the Francis Scale of Attitude toward Christianity: A study among Eastern Orthodox Christians. *Pastoral Psychology, 60*, 217-222. doi.org/10.1007/s11089-010-0327-2
- Flere, S., Klanjsek, R., Francis, L. J., & Robbins, M. (2008). The psychometric properties of the Slovenian translation of the Francis Scale of Attitude toward Christianity: A study among Roman Catholic undergraduate students. *Journal of Beliefs and Values, 29*, 313-319. doi.org/10.1080/13617670802465904
- Francis, L. J. (1978a). Attitude and longitude: A study in measurement. *Character Potential, 8*, 119-130.

- Francis, L. J. (1978b). Measurement reapplied: Research into the child's attitude towards religion. *British Journal of Religious Education, 1*, 45-51.  
doi.org/10.1080/0141620780010202
- Francis, L. J. (1979). School influence and pupil attitude towards religion. *British Journal of Educational Psychology, 49*, 107-123. doi.org/10.1111/j.2044-8279.1979.tb02405.x
- Francis, L. J. (1986). Denominational schools and pupil attitude towards Christianity. *British Educational Research Journal, 12*, 145-152. doi.org/10.1080/0141192860120204
- Francis, L. J. (1987). *Religion in the Primary School: Partnership between church and state?* London: Collins Liturgical Publications.
- Francis, L. J. (1997). The psychology of gender differences in religion: A review of empirical research. *Religion, 27*, 81-96. doi.org/10.1006/reli.1996.0066
- Francis, L. J. (2009). Understanding the attitudinal dimensions of religion and spirituality. In M. De Souza, L. J. Francis, J. O'Higgins-Norman, & D. G. Scott (Eds.), *International Handbook of education for spirituality, care and wellbeing* (pp. 147-167). Dordrecht: Springer. doi.org/10.1007/978-1-4020-9018-9\_9
- Francis, L. J., & Carter, M. (1980). Church aided secondary schools, religious education as an examination subject and pupil attitudes towards religion. *British Journal of Educational Psychology, 50*, 297-300. doi.org/10.1111/j.2044-8279.1980.tb00814.x
- Francis, L. J., & Enger, T. (2002). The Norwegian translation of the Francis Scale of Attitude toward Christianity. *Scandinavian Journal of Psychology, 43*, 363-367.  
doi.org/10.1111/1467-9450.00304
- Francis, L. J., & Gibson, H. M. (1993). Parental influence and adolescent religiosity: A study of church attendance and attitude toward Christianity among adolescents 11 to 12 and 15 to 16 years old. *International Journal for the Psychology of Religion, 3*, 241-253.  
doi.org/10.1207/s15327582ijpr0304\_4

- Francis, L. J., & Hermans, C. A. M. (2000). Internal consistency reliability and construct validity of the Dutch translation of the Francis Scale of Attitude toward Christianity among adolescents. *Psychological Reports, 86*, 301-307.  
doi.org/10.2466/pr0.2000.86.1.301
- Francis, L. J., Ispas, D., Robbins, M., Ilie, A., & Iliescu, D. (2009). The Romanian translation of the Francis Scale of Attitude toward Christianity: Internal consistency reliability, re-test reliability, and construct validity among undergraduate students within a Greek Orthodox culture. *Pastoral Psychology, 58*, 49-54. doi.org/10.1007/s11089-008-0174-6
- Francis, L. J., & Kwiran, M. (1999). Werthaltungen (einstellungen) gegenüber dem christentum bei deutschen heranwachsenden: Die Francis-Skala [Assessing attitude toward Christianity among German young people: The Francis Scale]. *Braunschweiger Beiträge, 89*, 50-54.
- Francis, L. J., Lankshear, D. W., & Eccles, E. L. (in press). The internal consistency reliability and construct validity of the Francis Scale of Attitude toward Christianity among 8- to 11-year-old students in Wales. *Mental Health, Religion and Culture*.
- Francis, L. J., & Penny, G. (2014). Gender differences in religion. In V. Saroglou (Ed.). *Religion, personality and social behaviour* (pp. 313-337). New York. Psychology Press.
- Francis, L. J., Quesnell, M., & Lewis, C. A. (2010). Assessing attitude toward Christianity among adolescents in the Czech Republic: The Francis Scale. *Irish Journal of Psychology, 31*, 125-134. doi.org/10.1080/03033910.2010.10446330
- Hirst, P. H. (1972). Christian education: A contradiction in terms? *Learning for Living, 11*, 6-11. doi.org/10.1080/00239707208556777
- Hull, J. M. (1975). *School worship: An obituary*. London: SCM.

- Kay, W. K., & Francis, L. J. (1996). *Drift from the Churches: Attitude toward Christianity during childhood and adolescence*. Cardiff: University of Wales Press.
- Lankshear, D. W. (2009). *Church in Wales education review*. Cardiff: Church in Wales.
- Lewis, C. A., & Francis, L. J. (2003). Evaluer l'attitude d'étudiantes universitaires françaises à l'égard du Christianisme: L'Echelle de Francis [Assessing the attitude of French university students toward Christianity: The Francis Scale]. *Sciences Pastorals*, 22, 179-190.
- Munayer, S. J. (2000). *The ethic identity of Palestinian Arab Christian adolescents in Israel*. Unpublished PhD diss., University of Wales, Oxford Center for Mission Studies.
- Murphy, J. (1971). *Church, state and schools in Britain 1800-1970*. London: Routledge and Kegan Paul.
- Rich, E. E. (1970). *The Education Act 1870*. London: Longmans.
- Schools Council (1971). *Religious education in secondary schools*. London: Evans Brothers and Methuen.
- Swindells, T., Francis, L. J., & Robbins, M. (2010). Shaping attitude toward Christianity among year seven pupils: The influence of sex, church, home and primary school. *Journal of Beliefs and Values*, 31(1), 343-348. doi.org/10.1080/13617672.2010.521013
- Tiliopoulos, N., Francis, L. J., & Jiang, Y. (2013). The Chinese translation of the Francis Scale of Attitude toward Christianity: Factor structure, internal consistency reliability and construct validity among Protestant Christians in Shanghai. *Pastoral Psychology*, 62, 75-79. doi.org/10.1007/s11089-012-0457-9
- Waddington, R. (1984). *A future in partnership*. London: National Society.
- Youtika, A., Joseph, S., & Diduca, D. (1999). Personality and religiosity in a Greek Christian Orthodox sample. *Mental Health, Religion and Culture*, 2, 71-74. doi.org/10.1080/13674679908406333

Table 1

*Item rest of test correlation, factor loadings and percent endorsement*

	<i>r</i>	<i>f</i>	Yes %
I find it boring to listen to the Bible <b>R</b>	.61	.62	23
I know that Jesus helps me	.78	.81	67
Saying my prayers helps me a lot	.76	.79	57
The church is very important to me	.71	.74	59
I think going to church is a waste of my time <b>R</b>	.62	.63	18
I want to love Jesus	.76	.79	64
I think church services are boring <b>R</b>	.60	.61	22
I think people who pray are stupid <b>R</b>	.43	.44	6
God helps me to lead a better life	.80	.83	69
I like to learn about God very much	.82	.85	64
God means a lot to me	.86	.89	69
I believe that God helps people	.83	.86	74
Prayer helps me a lot	.80	.83	59
I know that Jesus is very close to me	.82	.85	63
I think praying is a good thing	.81	.84	74
I think the Bible is out of date <b>R</b>	.50	.51	21
I believe that God listens to prayers	.78	.81	70
Jesus doesn't mean anything to me <b>R</b>	.68	.69	12
God is very real to me	.81	.84	65
I think saying prayers does no good <b>R</b>	.68	.69	15
The idea of God means much to me	.83	.86	67
I believe that Jesus still helps people	.81	.84	69
I know that God helps me	.84	.87	68
I find it hard to believe in God <b>R</b>	.62	.64	26
Alpha / percent variance	.97	58.3%	

Note: *r* = correlation between item and sum of other 23 items

*f* = factor loading

**R** = these items are reverse coded to compute *r* and *f* values

Table 2

*Correlation matrix*

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	sex	year	church	aided
Attitude toward Christianity	.10***	-.19***	.31***	.15***
Aided status	.03	-.02	.18***	
Church	.08***	.04**		
Year	.00			

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Note: \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 3

*Correlation matrix*

	model 1	model 2	model 3	model 4
Sex	.10***	.07***	.07***	.07***
Age	-.19***	-.21***	-.21***	-.20***
Church attendance		.31***	.30***	.30***
Aided status			.09***	.10***
Monmouth				.04*
St Asaph				.00
St Davids				-.01
Swansea and Breacon				-.02
$r^2$	.047	.144	.152	.154

Note: \*  $p < .05$ ; \*\*\*  $p < .001$

**Notes on contributors**

Leslie J. Francis is Director of the Warwick Religions and Education Research Unit and Professor of Religions and Education at the University of Warwick.

David W. Lankshear is Research Fellow in the Warwick Religions and Education Research Unit at the University of Warwick and Visiting Professor at Glyndŵr University.

Emma L. Eccles is Research Associate at Bishop Grosseteste University Lincoln.