



The Effects of the Children's Television Series *Sesame Tree* on Young Children's Social Attitudes and Cultural Awareness

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Poster Presentation at the British Educational Research Association Annual Conference,
University of Manchester, 2-5 September 2009.

Introduction

The Centre for Effective Education at Queen's University Belfast was commissioned by *Sesame Workshop* to evaluate the effects of the children's television series, *Sesame Tree*, on young children's attitudes and awareness. The evaluation was funded by: The American Ireland Fund; the International Fund for Ireland; and the Northern Ireland Fund for Reconciliation.

Sesame Tree is the Northern Ireland version of *Sesame Street* produced locally and incorporating new characters. The first series comprises 20 episodes, each of 15 minutes duration, that have been broadcast regionally on television in Northern Ireland since April 2008.

Sesame Tree has been developed for 3-6 year-old children with the aim of meeting the statutory requirements of the Personal Development and Mutual Understanding (PD&MU) area of the Revised Northern Ireland Curriculum.

Outcomes Tested

That watching *sesame tree* would result in children being:

1. More willing to be inclusive of others in general;
2. More willing to be inclusive of those from a different racial background;
3. More interested in participating in the cultural events associated with their own and other communities (specifically in terms of the Protestant and Catholic communities);
4. Less likely to see one another as similar or different in relation to the Catholic/Protestant divide; and
5. More aware of the wider environment and, in particular, of the need to recycle household waste.



Methodology

Two separate, but linked, studies were undertaken to test the effectiveness of *Sesame Tree* in achieving the five outcomes specified.

1. A Cluster Randomized Controlled Trial

- The trial involved a total of 441 children aged 5-6 years from 20 primary schools in Northern Ireland. 10 of the schools were randomly assigned to the intervention group and 10 to the control group.
- Those schools in the intervention group agreed simply to show their children three episodes of *Sesame Tree* per week in class for 10 weeks.
- The children in all 20 schools were tested prior to the 10 week trial beginning and then again following the end of that period.

2. A Naturalistic Study

- A naturalistic study was designed specifically to test the effects of young children's natural exposure to *Sesame Tree* on television on their attitudes and behaviour.
- A total of 697 children aged 5-6 years from 37 primary schools were selected randomly from across Northern Ireland to take part in the study.
- All children were tested over a two week period immediately prior to *Sesame Tree* first being broadcast in April 2008 and then were retested during a two week period in October 2008.
- Two measures of the children's exposure to *Sesame Tree* were used: children's ability to recognise the characters in *Sesame Tree* (Exposure 1); and children's self-reported viewing habits (Exposure 2).
- Data on the former measure were collected once at the end of the evaluation whereas data on the latter measure were collected at four time points during the course of the study.

Analysis

Because of the clustered nature of the two datasets, the main analysis for both studies used multilevel modelling with either linear regression used for continuous outcome variables or binary logistic regression for dichotomous outcome variables.

For each study, the main model (Model 1) assessed the overall effects of watching *Sesame Tree* on the children's respective post-test outcome scores after controlling for any initial differences in the children's pre-test scores and also their gender, religion and socio-economic background.

Three further analyses were conducted for each outcome in relation to assessing whether *Sesame Tree* was more effective for:

- girls or boys (Model 2);
- Catholics or Protestants (Model 3); and
- or those from differing socio-economic backgrounds (Model 4).

Findings

Overall, both studies found evidence of an association between the degree to which children (or specific subgroups of children) watched *Sesame Tree* and small but positive changes in relation to three of the five outcomes:

- willingness to be inclusive of others in general;
- interest in participating in the cultural events associated with their own and other communities (specifically in terms of events associated with the Protestant and Catholic communities); and
- increased awareness of the wider environment and, in particular, of the need to recycle household waste.

Further, it is noteworthy that neither of the two studies found evidence of an association between the degree to which children watched *Sesame Tree* and positive changes in relation to the remaining two outcomes, namely:

- willingness to be inclusive of those from a different racial background; and
- perceptions of similarities or differences in relation to the Catholic/Protestant divide.

Table 1 Summary of findings of the RCT1 Evaluation

Outcome	Overall (Model 1)	Gender (Model 2)	Religion (Model 3)	Socio-Economic Background (Model 4)
1) More willing to be inclusive of others in general	-	Girls (ES = +0.280)	Protestants (ES = +0.337) Catholics (ES = -0.188)	Affluent Children (ES = +0.414)
2) More willing to be inclusive of those from a different racial background	-	-	-	-
3a) More interested in participating in the cultural events associated with their own community	Not Applicable	-	Protestants (ES = +0.316)	-
3b) More interested in participating in the cultural events associated with other communities	Not Applicable	-	Protestants (ES = +0.216)	-
4) Less likely to see one another as similar or different in relation to the Catholic/Protestant divide	-	-	-	-
5a) More aware of the wider environment and, in particular, of the need to recycle household waste (empty plastic bottles)	All Children (ES = +0.087)	-	-	Affluent Children (ES = +0.325)
5b) More aware of the wider environment and, in particular, of the need to recycle household waste (empty cereal packets)	-	-	-	-

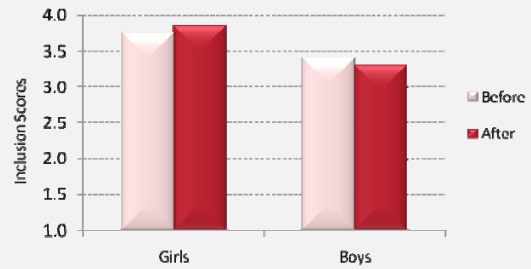
Table 2 Summary of findings of the Naturalistic Evaluation

Outcome	Overall (Model 1)	Gender (Model 2)	Religion (Model 3)	Socio-Economic Background (Model 4)
1) More willing to be inclusive of others in general	All Children (ES = +0.119) ^b	Boys (ES = +0.178) ^b	-	-
2) More willing to be inclusive of those from a different racial background	-	-	-	-
3a) More interested in participating in the cultural events associated with their own community	Catholics (ES = +0.170) ^b	-	Not Applicable	Affluent Protestants (ES = +0.115) ^b
3b) More interested in participating in the cultural events associated with other communities	Protestants (ES = +0.185) ^{bc}	Catholic Girls (ES = +0.199) ^b	Not Applicable	-
4) Less likely to see one another as similar or different in relation to the Catholic/Protestant divide	-	-	-	-
5a) More aware of the wider environment and, in particular, of the need to recycle household waste (empty plastic bottles)	-	-	-	-
5b) More aware of the wider environment and, in particular, of the need to recycle household waste (empty cereal packets)	All Children (ES = +0.106) ^a	-	Protestants (ES = -0.155) ^a	-

^a Using Exposure 1 (Character Recognition) Measure, ^b Using Exposure 2 (Self-Reported Viewing) Measure, ^c Approaching statistical significance.

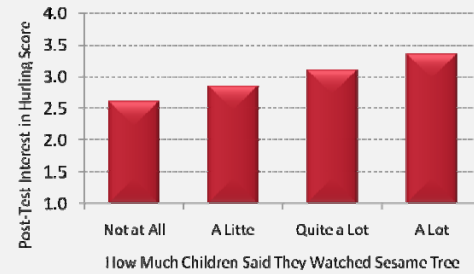


The Effects of Sesame Tree on the General Willingness of Girls and Boys in the Intervention Group to Include Others*



*The effects are those found above and beyond any changes in the Control Group and once religion and socio-economic background have been controlled for.

Effects of Naturalistic Exposure to Sesame Tree on Interest in Hurling Among Catholic Children*



*Controlling for pretest scores, gender and socio-economic background of the children.

Discussion and Implications

It is important not to over-interpret some of the specific findings of this evaluation given that they are: based on just two studies; relate to just a small number of outcomes that were identified and measured; and rely on the quality of the measures available for those outcomes. Rather, it is more appropriate to draw two more general conclusions:

1. There is strong and robust evidence that watching *Sesame Tree* is associated with small but positive developments in young children's attitudes and awareness (with effect sizes tending to range between 0.1 and 0.2).
2. There is also evidence to suggest that a child's gender, religion and/or socio-economic background can, at times, impact upon the strength of the association between watching *Sesame Tree* and positive change in their attitudes and awareness. However, these differential effects varied across the outcome measures and two studies with no clear and discernible overall pattern emerging.

The two studies reported here therefore provide strong evidence of the positive role that broadcast media can play in promoting social inclusion among young children. Further research is required to explore more fully the potential differential effects that *Sesame Tree* is having in relation to the five outcomes specified and in relation to different subgroups of children. Also, qualitative research is required to complement the findings of these two studies to help increase our understanding of the reasons behind the patterns of effects found.

Copies of Full Report

The full reports relating to both of the studies reported here are available to download from the Centre for Effective Education website at: www.qub.ac.uk/cee

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