
Report on organizing the ROSE survey in Northern Ireland

1. ROSE team

- name of contact person
- name of coworkers
- occupation
- name of institution

The Northern Ireland ROSE team consists of Dr Colette Murphy, Dr Ruth Leitch and PhD student Karen Carlisle. We are all located at the Graduate School of Education, Queen's University Belfast.

2. School system and science teaching

- (short!)
- number of years with compulsory school
- schools with grouping of pupils according to ability, gender, language, region, religion, special needs, etc.
- how science teaching is arranged at various grades (e.g. one common science subject or different subjects like physics, chemistry, biology, etc.)

The UK school system has twelve years of compulsory education. Children start at school at the age of 5, and are 16 when they leave. Compulsory schooling is divided into two stages: primary school from age 5 to 11, and secondary school with ages 11-16. Different parts of the UK have different policies with respect to science education. In England, Wales and Northern Ireland, science is a compulsory subject throughout the compulsory schooling years (although this is soon to change in Northern Ireland). In Scotland science is taught as part of Environmental Studies, one of the five broad areas of the primary curriculum, and as a separate subject at secondary level.

In Northern Ireland, there are selective schools, known as grammar schools. These represent approximately 30 per cent of all secondary schools. Most primary schools and secondary schools are mixed sex, but some secondary schools (mostly grammar schools) are single sex.

The Northern Ireland Curriculum comprises five compulsory 'areas of study' from KS1-4: English, mathematics, science and technology, environment and society, and creative and expressive studies, and, at secondary level only, modern languages. Within the areas of study, the minimum requirements are: English, mathematics, science and technology, (science is a separate subject at secondary level), history, geography, art and design, music, physical education and religious education. At secondary level, a modern language is an additional requirement. In addition, there are educational themes, to be woven through the main subjects of the curriculum: education for mutual understanding, cultural heritage, health education and information technology. At secondary level, the educational themes also include economic awareness and careers education

There are a few special schools for children with severe physical and/or learning disabilities, but most pupils with special learning needs are integrated in ordinary public school. Most schools in Northern Ireland are Catholic or Protestant, with only about 10% designated as integrated schools.

3. Translation

- description of the process
- at what time the translation was done
- any particular difficulties?

There were no issues with regard to translation because the questionnaire is in English.

4. National questions

- additional questions for background of the home (parents education or occupation, etc.)
- additional survey questions

We added two more background variables, the level to which the students were studying science for the state tests at 16 and whether they attended grammar or non-selective schools. At the end of the questionnaire, we invited students to draw an 'image of science'.

5. Piloting

- pilot testing of the questionnaire, if any
- experiences, feedback and results

Since the questionnaire had already been successfully administered in England, we did not feel we needed to carry out a further pilot study.

6. Official permission

- permission needed from authorities
- restrictions and difficulties, if any

n/a

7. Population

- demarcation of the target population (the population to be represented)
- accessible population

The ROSE target population in Northern Ireland was the cohort of 15 year old Norwegian pupils living in our country in 2003/4. As ROSE samples school classes and not individual pupils, the target population was more precisely defined as the pupils at the grade level where most 15-year old pupils were likely to go. This means the grade level with most pupils born in 1987, which corresponds to year 11 in Northern Ireland post-primary schools.

8. Sample and participation

- how the sample was drawn, random sampling?

- response rate, percentage of positive responses
- how good does the sample represent the target population?
- possible weaknesses connected to the sample

There are approximately 200 post-primary schools in Northern Ireland. We sampled on two occasions, which coincided with our 50 science student teachers' school placements in grammar and non-grammar schools, respectively. Our first sample comprised non-grammar schools from all over Northern Ireland. We wrote to schools in which students were placed and invited them to participate in the survey. The student teachers administered the questionnaire to one group (maximum of 24 pupils) of year 11 pupils in each participating school (in May 2003). Many of them took the opportunity to discuss issues arising from the questionnaire with the pupils after they had completed their responses. The same process was used for data collection from non-grammar schools (in January 2004).

The age distribution of the returned sample is as follows.

Age	Number of pupils
12	3
13	18
14	252
15	560
16	20

We believe that we can regard the sample being representative for the Northern Ireland target population, since our sample represents approximately 20% total number of post-primary schools.

9. Data collection in schools

- how the contact with schools was established
- how the questionnaire was duplicated
- how the questionnaire was distributed
- persons involved in conducting the survey at schools
- what instructions the persons got
- practical problems, if any
- at what time the data was collected

(Covered in the previous section)

10. Feedback and experiences

- reactions from the pupils, if any
- reactions from the persons who collected the data
- ROSE team's general feeling of how well the survey was conducted

We asked students about their experiences when they came back to the University. They were invariably positive about the pupils' reactions to the questionnaire and about the opportunities for discussion which completion of the questionnaire generated.

11. Coding (also of the open-ended I question)

- how the coding was done
- who coded the questionnaire
- problems with the coding, if any
- how flippant or incomplete responses were handled
- proofreading and checking of the coding, if any

- at what time the coded file was finalized

Karen Carlisle (PhD student) was contracted to code and enter all the Northern Ireland data into SPSS, coded responses.

In some questionnaires the respondents had obviously not taken the task seriously, e.g. by making symmetric patterns in the response categories. Such questionnaires were excluded.

The coding of the open-ended questions were done in a separate file, based on the file provided by ROSE on the home page.

Belfast May 2004

Colette Murphy