Report on organizing the ROSE survey in [Israel]

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1. ROSE team

The Israeli ROSE team consists of only one person, Professor Ricardo Trumper, located at University of Haifa, Faculty of Science and Science Education, Mathematics-Physics Teaching Department.

2. School system and science teaching

The Israeli school system has ten years of compulsory education. Children start at school at the age of 6, and are 15-16 when they leave. Compulsory school is divided into two steps: primary school with grade 1 to 6 and secondary school with grade 7 to 10. The school is free and compulsory. Pupils progress year by without repeaters. Until grade 9 in compulsory school there is one common subject for the natural sciences called "Science and Technology". The contents are mainly taken from biology and chemistry in primary school and from biology, chemistry and physics in secondary school. From grade 10 on the different sciences are elective subjects.

In Israel there is no streaming or grouping of pupils according to ability or gender, etc., but we have a few private schools basing their teaching on the Jewish religion, particular philosophies or alternative educational approach. About 90 percent of all children in Israel attend the public state schools.

There are a few special schools for deaf children and children with very weak abilities, but most pupils with special learning needs are integrated in ordinary public school.

3. Translation

In Israel we got the English version of the ROSE questionnaire that was sent to us from the University of Oslo, in January 2003.

I translated all the items by myself, and after doing that I asked for the supervision of an English-speaking colleague who deals also with science education.

In the Israeli edition, we have been aiming at keeping the expressions and the wording simple and clear, most phrases being shorter than the English ones.

4. National questions

We added one item for background: Where do you live? That is the name of your city, town, moshav or kibbutz.

5. Piloting

We made no pilot testing to the questionnaire.

6. Official permission

In February 2003 we wrote a letter to the Ministry of Education asking for their official permission to run the questionnaire in schools, and got it immediately. This permission was presented to each of the school principals, who had to let us run the questionnaire in his/her school.

7. Population

The ROSE target population in Israel was the cohort of 15-year old Israeli pupils living in our country in 2003. 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 1988, which corresponds to grade 9 in lower secondary school.

8. Sample and participation

In the end of February 2003, we sent letters to 35 sampled secular Jewish schools, located in the central and northern part of Israel, outside the large cities, and invited them to participate in the ROSE survey. We received 30 affirmative and 5 negative answers. This gave us an overall positive attitude towards participating in the survey on school level of 86 percent. Because of timetable limitations we succeeded to present the questionnaire in only 25 schools.

The Israeli population is not ethnically homogeneous, since there are many immigrants from different parts of the world. Most students were Israeli born (children or grand-children of old immigrants). Only a very limited proportion of the students were "new" immigrants from Ethiopia, Russia or Argentine.

There may be some weakness in our sample due to issues described above, like missing respondents and "new" immigrants, but our overall impression is that the quality of the sample is high. We believe that we can regard the sample being representative for the Israeli target population.

9. Data collection in schools

At each school, the school principals appointed one person who could organize the project locally. Through these coordinators we could distribute one class set of printed questionnaires to each class. Successively as we received affirmative answers to our invitation, the class sets of questionnaires were sent to the coordinators at the schools.

With the questionnaires we attached a letter with some instructions and descriptions of practicalities for conducting the survey, like: which of the parallel classes that should participate, the survey should preferably be conducted before Passover, ca. 45 minutes would be sufficient for most pupils, the school could preferably carry out the survey in a science lesson, the questionnaires should be kept unnamed and anonymous, etc.

The sending also contained a pre-paid and addressed envelope for the return of the questionnaires to the University of Haifa.

From March to May 2003 all 25 schools had conducted the survey and returned the filled-in questionnaires.

10. Feedback and experiences

To each participating school we sent a written acknowledgement for recognition of their work and their help. In this letter we also took the opportunity to ask about their experiences from the data collection in the classes, what kind of practical obstacles they met, the spontaneous reactions from the pupils, etc.

We received no written responses to this request, and the personal comments we got from some school principals were

- "most questions seemed clear and good"
- "a straightforward survey, but with numerous items"
- "appropriate time"
- "many pupils found the questions interesting"
- "some of the pupils with weak reading ability found that it was much to read, but they got help from their teachers"

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

I coded all the Israeli responses into the SPSS empty data files that were distributed to all participants and according to the guidelines in the "ROSE Handbook".
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.
Towards the end of June 2003 the coding was completed. There were for example instances where the respondent took the task seriously through the first few pages, but seemed to have flipped out during the last part of the questionnaire. There were other instances where entire pages were empty, like if the respondent had overlooked them. In cases where only minor parts of the questionnaire were not satisfactorily filled in, the variables were coded with 9 (missing). Otherwise the whole questionnaire was excluded from the SPSS file.

We consider it as likely that there still are some flippant responses and coding errors in the data file, but our overall impression is that the quality of the data file is rather high.

In the end of June 2003 the Israeli SPSS file was finalized - with 635 respondents distributed on

- 338 girls
  297 boys
- 161 14-year-olds (25.3 %)
  462 15-year olds (72.8 %)
  9 16-year-olds (1.4 %)
  3 didn't write age (0.5%)

The coding of the open-ended questions were done later, and in a separate file, based on the file provided by ROSE on the home page. The emerging problems and uncertainties were handled in a similar way as for the main file. In general the coding was straightforward.

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