

ROSE Code Book

This document contains data entry file information for '**ROSE data.sav**' in SPSS format and '**ROSE data.xls**' in Microsoft Excel format. If available, we prefer that you use SPSS, since this will be the program to be used for the data analysis. If you have some experience with SPSS, the empty data file is more or less self-explanatory, but the following information may clarify things a bit further.

The following is a list of the variables in the data entry file, and instructions on how to code each variable. Please rename the data file to a name indicating the name of your country, e.g. 'ROSE Norway.sav'.

In the SPSS file, the variables have *names* with a maximum length of eight characters. Most variable names are composed of the question number (capital letters) and the item number. Each variable has a corresponding *label* with the questionnaire item text. The Excel file is the SPSS file converted to Excel format. The format transformation caused some loss of information, e.g. the labels are not sustained in the Excel file. If you have the SPSS software available, we recommend this programme for data entry. For Excel users, we have included an Appendix in this document with complete list of all variables and the corresponding labels. (Notice that one Excel page does not have enough columns available for the whole ROSE questionnaire, therefore variables for question H and J are on page 2 in the spreadsheet.)

Beneath the heading 'Value' in this document, you find the legal values of the variable.

As a general rule, the position of the respondents' tick in one of the four response categories, is the value to be entered: a tick in the first box shall be coded as '1', a tick in the second box shall be coded as '2' etc.

The Likert scales in the ROSE questionnaire have headings only for the extreme categories, while the two middle categories are untitled. In this document, the middle left and the middle right response categories are labelled 'lo [leftmost]' and 'lo [rightmost]' respectively.

When the respondent has given no response or multiple responses to one item, it counts as *missing*, and shall be coded as '9'. You shall also make use of the **missing code '9'** in cases when it is obvious that the respondent has not answered the question seriously, e.g. when the ticks on one page or in one question are all positioned in the rightmost boxes.

For simplicity, the open question (I. *Myself as a scientist*) is excluded from this data entry file. Coding the variables in the file at hand is a rather straightforward punching job, while coding of the open question request consideration of substance. Consequently, the two coding tasks are separated, and the open question will be coded at a later stage. We are currently working on the categories for the open question responses, and a separate code book will be provided in January 2003 (the unique identification number for each questionnaire is crucial for later merging of the two data files!).

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File information for 'ROSE data.sav'

Variable
name

Q_ID questionnaire identification number
Measurement Level: Ordinal

Value: give each questionnaire a unique identification number and write the number at the first page of the questionnaire and enter it in this variable (for easy retrieval in case of corrections, merging data files, etc.)

SEX girl or boy
Measurement Level: Ordinal
Missing Value: 9

Value	Label
1	girl
2	boy

AGE years old
Measurement Level: Scale
Missing Value: 9

Value: the age of the pupil

COUNTRY survey country, the country in which the survey has taken place
Measurement Level: Nominal

Value: the name of the country

VAR1-VAR4 national, if applicable (like region, stratum, name of school, mother tongue, etc.)

X_NXT_PG page brake, finished items on front cover
X1-X11 page brake, finished items on page [#]

Each page shift in the questionnaire should be coded with the letter 'x', since this will ensure that a possible mistake (e.g. a shift in position) can be easily detected.

Value: x

A01-A48 question A. What I want to learn about
Measurement Level: Ordinal
Missing Value: 9

Value	Label
1	not interested
2	lo not interested
3	lo very interested
4	very interested

B01-B26 question B. My future job
Measurement Level: Ordinal
Missing Value: 9

Value	Label
1	not important
2	lo not important
3	lo very important
4	very important

C01-C18 question C. What I want to learn about
Measurement Level: Ordinal
Missing Value: 9

<i>Value</i>	<i>Label</i>
1	not interested
2	lo not interested
3	lo very interested
4	very interested

D01-D18 question D. Me and the environmental challenges
Measurement Level: Ordinal
Missing Value: 9

<i>Value</i>	<i>Label</i>
1	disagree
2	lo disagree
3	lo agree
4	agree

E01-E42 question E. What I want to learn about
Measurement Level: Ordinal
Missing Value: 9

<i>Value</i>	<i>Label</i>
1	not interested
2	lo not interested
3	lo very interested
4	very interested

F01-F16 question F. My science classes
Measurement Level: Ordinal
Missing Value: 9

<i>Value</i>	<i>Label</i>
1	disagree
2	lo disagree
3	lo agree
4	agree

G01-G16 question G. My opinions about science and technology
Measurement Level: Ordinal
Missing Value: 9

<i>Value</i>	<i>Label</i>
1	disagree
2	lo disagree
3	lo agree
4	agree

H01-H61 question H. My out-of-school experiences
Measurement Level: Ordinal
Missing Value: 9

<i>Value</i>	<i>Label</i>
1	never
2	lo never
3	lo often
4	often

J question J. How many books are there in your home?
Measurement Level: Ordinal
Missing Value: 9

<i>Value</i>	<i>Label</i>
1	none
2	1-10 books
3	11-50 books
4	51-100 books
5	101-250 books
6	251-500 books
7	More than 500 books

Appendix: Complete list of variables and labels

In this variable list, the variables are arranged in the same order as in the data entry file. The list is primarily intended for users of Excel. Please note that the labels are truncated at the end of the line (while they are complete in SPSS file)

<i>Var. no.</i>	<i>Var. name</i>	<i>Label</i>
1.	Q_ID	questionnaire identification number
2.	SEX	girl or boy
3.	AGE	years old
4.	COUNTRY	survey country
5.	VAR1	national, if applicable
6.	VAR2	national, if applicable
7.	VAR3	national, if applicable
8.	VAR4	national, if applicable
9.	X_NXT_PG	page brake, finished items on front cover
10.	A01	A1. Stars, planets and the universe
11.	A02	A2. Chemicals, their properties and how they react
12.	A03	A3. The inside of the earth
13.	A04	A4. How mountains, rivers and oceans develop and change
14.	A05	A5. Clouds, rain and the weather
15.	A06	A6. The origin and evolution of life on earth
16.	A07	A7. How the human body is built and functions
17.	A08	A8. Heredity, and how genes influence how we develop
18.	A09	A9. Sex and reproduction
19.	A10	A10. Birth control and contraception
20.	A11	A11. How babies grow and mature
21.	A12	A12. Cloning of animals
22.	A13	A13. Animals in other parts of the world
23.	A14	A14. Dinosaurs, how they lived and why they died out
24.	A15	A15. How plants grow and reproduce
25.	A16	A16. How people, animals, plants and the environment depend
26.	A17	A17. Atoms and molecules
27.	A18	A18. How radioactivity affects the human body
28.	A19	A19. Light around us that we cannot see (infrared, ultraviol
29.	A20	A20. How animals use colours to hide, attract or scare
30.	A21	A21. How different musical instruments produce different sou
31.	A22	A22. Black holes, supernovas and other spectacular objects i
32.	A23	A23. How meteors, comets or asteroids may cause disasters on
33.	X1	page brake, finished items on page 1
34.	A24	A24. Earthquakes and volcanoes
35.	A25	A25. Tornados, hurricanes and cyclones
36.	A26	A26. Epidemics and diseases causing large losses of life
37.	A27	A27. Brutal, dangerous and threatening animals
38.	A28	A28. Poisonous plants in my area
39.	A29	A29. Deadly poisons and what they do to the human body
40.	A30	A30. How the atom bomb functions
41.	A31	A31. Explosive chemicals
42.	A32	A32. Biological and chemical weapons and what they do to the
43.	A33	A33. The effect of strong electric shocks and lightning on t
44.	A34	A34. How it feels to be weightless in space
45.	A35	A35. How to find my way and navigate by the stars
46.	A36	A36. How the eye can see light and colours
47.	A37	A37. What to eat to keep healthy and fit
48.	A38	A38. Eating disorders like anorexia or bulimia
49.	A39	A39. The ability of lotions and creams to keep the skin youn
50.	A40	A40. How to exercise to keep the body fit and strong
51.	A41	A41. Plastic surgery and cosmetic surgery
52.	A42	A42. How radiation from solariums and the sun might affect t
53.	A43	A43. How the ear can hear different sounds
54.	A44	A44. Rockets, satellites and space travel

55.	A45	A45. The use of satellites for communication and other purpo
56.	A46	A46. How X-rays, ultrasound, etc. are used in medicine
57.	A47	A47. How petrol and diesel engines work
58.	A48	A48. How a nuclear power plant functions
59.	X2	page brake, finished items on page 2
60.	B01	B1. Working with people rather than things
61.	B02	B2. Helping other people
62.	B03	B3. Working with animals
63.	B04	B4. Working in the area of environmental protection
64.	B05	B5. Working with something easy and simple
65.	B06	B6. Building or repairing objects using my hands
66.	B07	B7. Working with machines or tools
67.	B08	B8. Working artistically and creatively in art
68.	B09	B9. Using my talents and abilities
69.	B10	B10. Making, designing or inventing something
70.	B11	B11. Coming up with new ideas
71.	B12	B12. Having lots of time for my friends
72.	B13	B13. Making my own decisions
73.	B14	B14. Working independently of other people
74.	B15	B15. Working with something I find important and meaningful
75.	B16	B16. Working with something that fits my attitudes and value
76.	B17	B17. Having lots of time for my family
77.	B18	B18. Working with something that involves a lot of travellin
78.	B19	B19. Working at a place where something new and exciting hap
79.	B20	B20. Earning lots of money
80.	B21	B21. Controlling other people
81.	B22	B22. Becoming famous
82.	B23	B23. Having lots of time for my interests, hobbies and activ
83.	B24	B24. Becoming 'the boss' at my job
84.	B25	B25. Developing or improving my knowledge and abilities
85.	B26	B26. Working as part of a team with many people around me
86.	X3	page brake, finished items on page 3
87.	C01	C1. How crude oil is converted to other materials, like plas
88.	C02	C2. Optical instruments and how they work (telescope, camera
89.	C03	C3. The use of lasers for technical purposes (CD-players, ba
90.	C04	C4. How cassette tapes, CDs and DVDs store and play sound an
91.	C05	C5. How things like radios and televisions work
92.	C06	C6. How mobile phones can send and receive messages
93.	C07	C7. How computers work
94.	C08	C8. The possibility of life outside earth
95.	C09	C9. Astrology and horoscopes, and whether the planets can in
96.	C10	C10. Unsolved mysteries in outer space
97.	C11	C11. Life and death and the human soul
98.	C12	C12. Alternative therapies (acupuncture, homeopathy, yoga, h
99.	C13	C13. Why we dream while we are sleeping, and what the dreams
100.	C14	C14. Ghosts and witches, and whether they may exist
101.	C15	C15. Thought transference, mind-reading, sixth sense, intuit
102.	C16	C16. Why the stars twinkle and the sky is blue
103.	C17	C17. Why we can see the rainbow
104.	C18	C18. Properties of gems and crystals and how these are used
105.	X4	page brake, finished items on page 4
106.	D01	D1. Threats to the environment are not my business
107.	D02	D2. Environmental problems make the future of the world look
108.	D03	D3. Environmental problems are exaggerated
109.	D04	D4. Science and technology can solve all environmental probl
110.	D05	D5. I am willing to have environmental problems solved even
111.	D06	D6. I can personally influence what happens with the environ
112.	D07	D7. We can still find solutions to our environmental problem
113.	D08	D8. People worry too much about environmental problems
114.	D09	D9. Environmental problems can be solved without big changes
115.	D10	D10. People should care more about protection of the environ
116.	D11	D11. It is the responsibility of the rich countries to solve
117.	D12	D12. I think each of us can make a significant contribution
118.	D13	D13. Environmental problems should be left to the experts

119.	D14	D14. I am optimistic about the future
120.	D15	D15. Animals should have the same right to life as people
121.	D16	D16. It is right to use animals in medical experiments if th
122.	D17	D17. Nearly all human activity is damaging for the environme
123.	D18	D18. The natural world is sacred and should be left in peace
124.	X5	page brake, finished items on page 5
125.	E01	E1. Symmetries and patterns in leaves and flowers
126.	E02	E2. How the sunset colours the sky
127.	E03	E3. The ozone layer and how it may be affected by humans
128.	E04	E4. The greenhouse effect and how it may be changed by human
129.	E05	E5. What can be done to ensure clean air and safe drinking w
130.	E06	E6. How technology helps us to handle waste, garbage and sew
131.	E07	E7. How to control epidemics and diseases
132.	E08	E8. Cancer, what we know and how we can treat it
133.	E09	E9. Sexually transmitted diseases and how to be protected ag
134.	E10	E10. How to perform first-aid and use basic medical equipmen
135.	E11	E11. What we know about HIV/AIDS and how to control it
136.	E12	E12. How alcohol and tobacco might affect the body
137.	E13	E13. How different narcotics might affect the body
138.	E14	E14. The possible radiation dangers of mobile phones and com
139.	E15	E15. How loud sound and noise may damage my hearing
140.	E16	E16. How to protect endangered species of animals
141.	E17	E17. How to improve the harvest in gardens and farms
142.	E18	E18. Medicinal use of plants
143.	E19	E19. Organic and ecological farming without use of pesticide
144.	E20	E20. How energy can be saved or used in a more effective way
145.	E21	E21. New sources of energy from the sun, wind, tides, waves,
146.	E22	E22. How different sorts of food are produced, conserved and
147.	E23	E23. How my body grows and matures
148.	X6	page brake, finished items on page 6
149.	E24	E24. Animals in my area
150.	E25	E25. Plants in my area
151.	E26	E26. Detergents, soaps and how they work
152.	E27	E27. Electricity, how it is produced and used in the home
153.	E28	E28. How to use and repair everyday electrical and mechanica
154.	E29	E29. The first landing on the moon and the history of space
155.	E30	E30. How electricity has affected the development of our soc
156.	E31	E31. Biological and human aspects of abortion
157.	E32	E32. How gene technology can prevent diseases
158.	E33	E33. Benefits and possible hazards of modern methods of farm
159.	E34	E34. Why religion and science sometimes are in conflict
160.	E35	E35. Risks and benefits of food additives
161.	E36	E36. Why scientists sometimes disagree
162.	E37	E37. Famous scientists and their lives
163.	E38	E38. Big blunders and mistakes in research and inventions
164.	E39	E39. How scientific ideas sometimes challenge religion, auth
165.	E40	E40. Inventions and discoveries that have changed the world
166.	E41	E41. Very recent inventions and discoveries in science and t
167.	E42	E42. Phenomena that scientists still cannot explain
168.	X7	page brake, finished items on page 7
169.	F01	F1. School science is a difficult subject
170.	F02	F2. School science is interesting
171.	F03	F3. School science is rather easy for me to learn
172.	F04	F4. School science has opened my eyes to new and exciting jo
173.	F05	F5. I like school science better than most other subjects
174.	F06	F6. I think everybody should learn science at school
175.	F07	F7. The things that I learn in science at school will be hel
176.	F08	F8. I think that the science I learn at school will improve
177.	F09	F9. School science has made me more critical and sceptical
178.	F10	F10. School science has increased my curiosity about things
179.	F11	F11. School science has increased my appreciation of nature
180.	F12	F12. School science has shown me the importance of science f
181.	F13	F13. School science has taught me how to take better care of
182.	F14	F14. I would like to become a scientist

183.	F15	F15. I would like to have as much science as possible at sch
184.	F16	F16. I would like to get a job in technology
185.	X8	page brake, finished items on page 8
186.	G01	G1. Science and technology are important for society
187.	G02	G2. Science and technology will find cures to diseases such
188.	G03	G3. Thanks to science and technology, there will be greater
189.	G04	G4. Science and technology make our lives healthier, easier
190.	G05	G5. New technologies will make work more interesting
191.	G06	G6. The benefits of science are greater than the harmful eff
192.	G07	G7. Science and technology will help to eradicate poverty an
193.	G08	G8. Science and technology can solve nearly all problems
194.	G09	G9. Science and technology are helping the poor
195.	G10	G10. Science and technology are the cause of the environment
196.	G11	G11. A country needs science and technology to become develo
197.	G12	G12. Science and technology benefit mainly the developed cou
198.	G13	G13. Scientists follow the scientific method that always lea
199.	G14	G14. We should always trust what scientists have to say
200.	G15	G15. Scientists are neutral and objective
201.	G16	G16. Scientific theories develop and change all the time
202.	X9	page brake, finished items on page 9
203.	H01	H1. tried to find the star constellations in the sky
204.	H02	H2. read my horoscope (telling future from the stars)
205.	H03	H3. read a map to find my way
206.	H04	H4. used a compass to find direction
207.	H05	H5. collected different stones or shells
208.	H06	H6. watched (not on TV) an animal being born
209.	H07	H7. cared for animals on a farm
210.	H08	H8. visited a zoo
211.	H09	H9. visited a science centre or science museum
212.	H10	H10. milked animals like cows, sheep or goats
213.	H11	H11. made dairy products like yoghurt, butter, cheese or ghe
214.	H12	H12. read about nature or science in books or magazines
215.	H13	H13. watched nature programmes on TV or in a cinema
216.	H14	H14. collected edible berries, fruits, mushrooms or plants
217.	H15	H15. participated in hunting
218.	H16	H16. participated in fishing
219.	H17	H17. planted seeds and watched them grow
220.	H18	H18. made compost of grass, leaves or garbage
221.	H19	H19. made an instrument (like a flute or drum) from natural
222.	H20	H20. knitted, weaved, etc
223.	H21	H21. put up a tent or shelter
224.	H22	H22. made a fire from charcoal or wood
225.	H23	H23. prepared food over a campfire, open fire or stove burne
226.	H24	H24. sorted garbage for recycling or for appropriate disposa
227.	H25	H25. cleaned and bandaged a wound
228.	H26	H26. seen an X-ray of a part of my body
229.	X10	page brake, finished items on page 10
230.	H27	H27. taken medicines to prevent or cure illness or infection
231.	H28	H28. taken herbal medicines or had alternative treatments (a
232.	H29	H29. been to a hospital as a patient
233.	H30	H30. used binoculars
234.	H31	H31. used a camera
235.	H32	H32. made a bow and arrow, slingshot, catapult or boomerang
236.	H33	H33. used an air gun or rifle
237.	H34	H34. used a water pump or siphon
238.	H35	H35. made a model such as toy plane or boat etc
239.	H36	H36. used a science kit (like for chemistry, optics or elect
240.	H37	H37. used a windmill, watermill, waterwheel, etc
241.	H38	H38. recorded on video, DVD or tape recorder
242.	H39	H39. changed or fixed electric bulbs or fuses
243.	H40	H40. connected an electric lead to a plug etc.
244.	H41	H41. used a stopwatch
245.	H42	H42. measured the temperature with a thermometer
246.	H43	H43. used a measuring ruler, tape or stick

247. H44 H44. used a mobile phone
248. H45 H45. sent or received an SMS (text message on mobile phone)
249. H46 H46. searched the internet for information
250. H47 H47. played computer games
251. H48 H48. used a dictionary, encyclopaedia, etc. on a computer
252. H49 H49. downloaded music from the internet
253. H50 H50. sent or received e-mail
254. H51 H51. used a word processor on the computer
255. H52 H52. opened a device (radio, watch, computer, telephone, etc
256. X11 page brake, finished items on page 11
257. H53 H53. baked bread, pastry, cake, etc
258. H54 H54. cooked a meal
259. H55 H55. walked while balancing an object on my head
260. H56 H56. used a wheelbarrow
261. H57 H57. used a crowbar (jemmy)
261. H58 H58. used a rope and pulley for lifting heavy things
263. H59 H59. mended a bicycle tube
264. H60 H60. used tools like a saw, screwdriver or hammer
265. H61 H61. charged a car battery
266. J J. How many books are there in your home?