Computing Research Project

INTERPRETING THE EVIDENCE AND REPORTING THE FINDING

Introduction

- Raw data taken from questionnaires, interview schedules, checklists, and so on need to be recorded, analysed and interpreted
- A hundred separate pieces of interesting information will mean nothing to a researcher or to a reader unless they have been categorized and interpreted
- We are constantly looking for similarities and differences, for groupings, patterns and items of particular significance
- Some of these question types will be used to illustrate ways in which responses might be interpreted and presented

List questions

- Let us say ions your mature stu r the course.
- They may v you will need to be ses

What qualifications did you have before you started your degree course?

None	☐	Professional qualification*	☐
Successful completion of Access or Return to Study course	☐	A level or equivalent*	☐
Other*	☐		

Please specify* _____

_____

_____

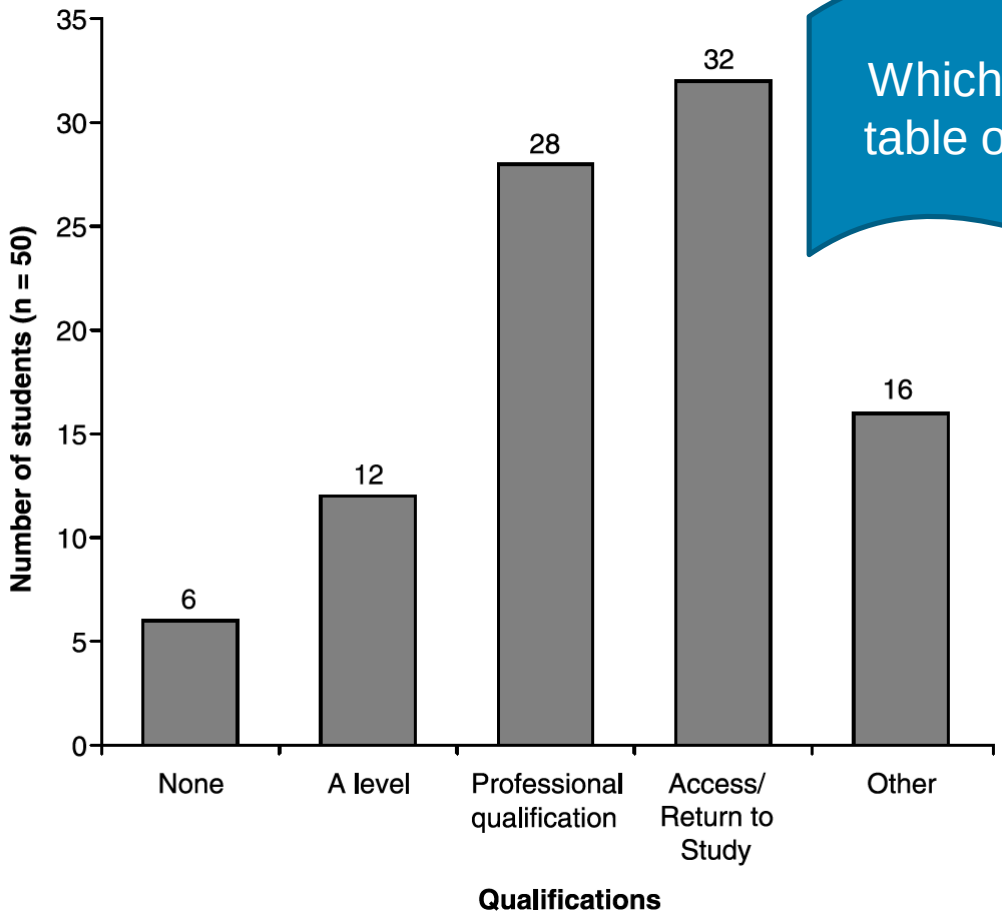
Summary sheet for Question 12.1 Qualifications before entry

None	*Professional*	*Access/Return to*	*A level*	*Other*

Table 12.1 Qualifications of mature students before entry to their course

None	*A level*	*Professional*	*Access/Return to Study*	*Other*
6	12	28	32	16

6	28	32	12	16



Which is clearer? The table or the bar chart?

Interesting features from the data

- Thirty-two of the 50 students in our sample (64 per cent) took Access/Return to Study courses
- 12 (24 per cent) had A levels or equivalent
- It might be interesting to discover which group performed better in examinations
- Six students (12 per cent of the total of 50) had no qualifications at all on entry. How then had they prepared themselves for their undergraduate studies? Are they coping?
- It might be useful to follow up these and similar issues in interviews

Quantity and category questions

Question 12.2 Age distribution of students at initial registration

How old were you when you first registered for your degree course?

What will you do with responses? *What exactly do you want to know?* The average age of students? If so, you will need to decide what sort of average (or measure of central tendency) will suit your purpose – *the arithmetic mean*, *the median*, or *the mode*.

Alternative Question 12.2 Age when you first registered for your degree

20–29	30–39	40–49	50–59	60+
1	2	3	4	5

Table 12.2 Arithmetic mean of respondents' ages

Age	*Frequency*	*Mid-point*	*Frequency* × *Mid-point*
20–29	34	25	850
30–39	10	35	350
40–49	4	45	180
50–59	1	55	55
60+	1	60	60
Total	50		1495

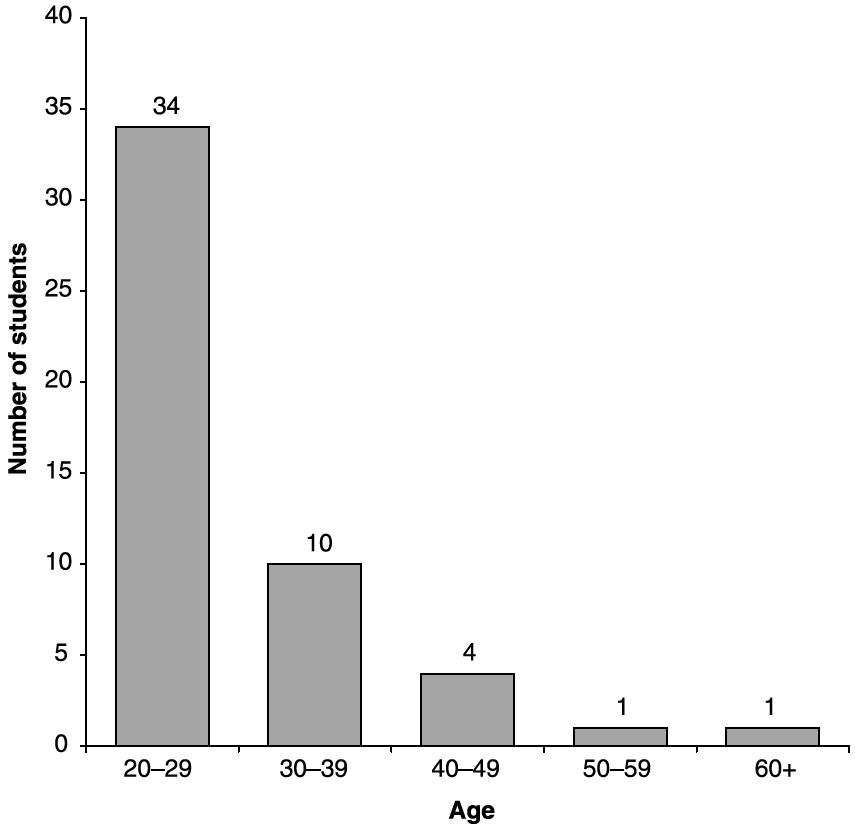


Figure 12.2 Age distribution of mature students at initial registration

Table 12.3 Age distribution of students at initial registration

Age	*Number of students*
20–29	34
30–39	10
40–49	4
50–59	1
60+	1
Total	50

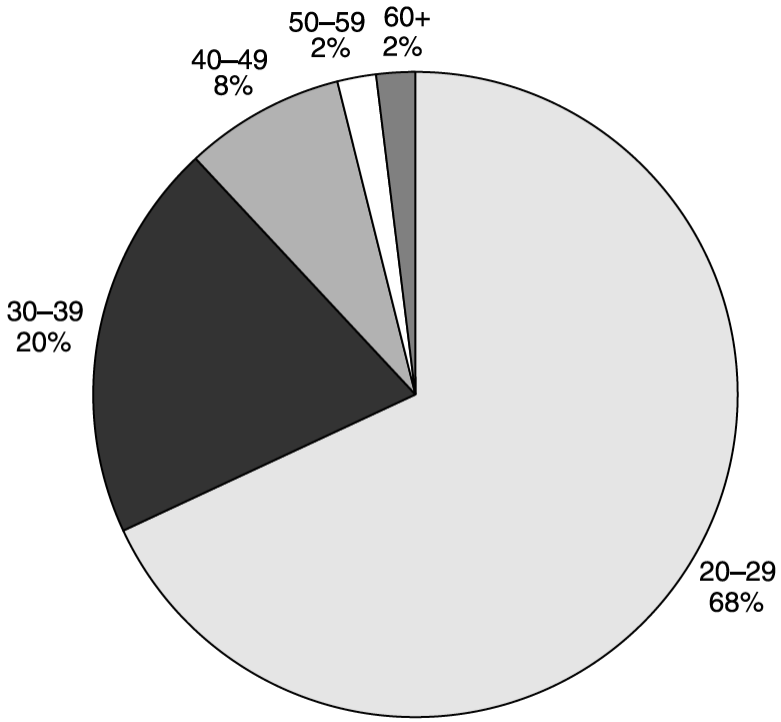


Figure 12.3 Age distribution of students at the start of their course

Coding

- Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study. Codes are usually attached to “chunks” of varying size – words, phrases, sentences or whole paragraphs, connected or unconnected to a specific setting

(Miles and Huberman 1994: 56).

Coding for qualification example

Question 12.1 Qualifications before entry

None	1
Professional qualifications	2
Access/Return to Study	3
A level or equivalent	4
Other	5
No reply	9

Grids

Question 12.3 Since the age of 18, how many years have you spent on the following? (Ignore periods of less than one academic year.)

	1–2 years	*3–4 years*	*5–6 years*	*More than 6 years*
Professional qualification				
GCE A level or equivalent				
Access/Return to Study course				
Other (please specify)				

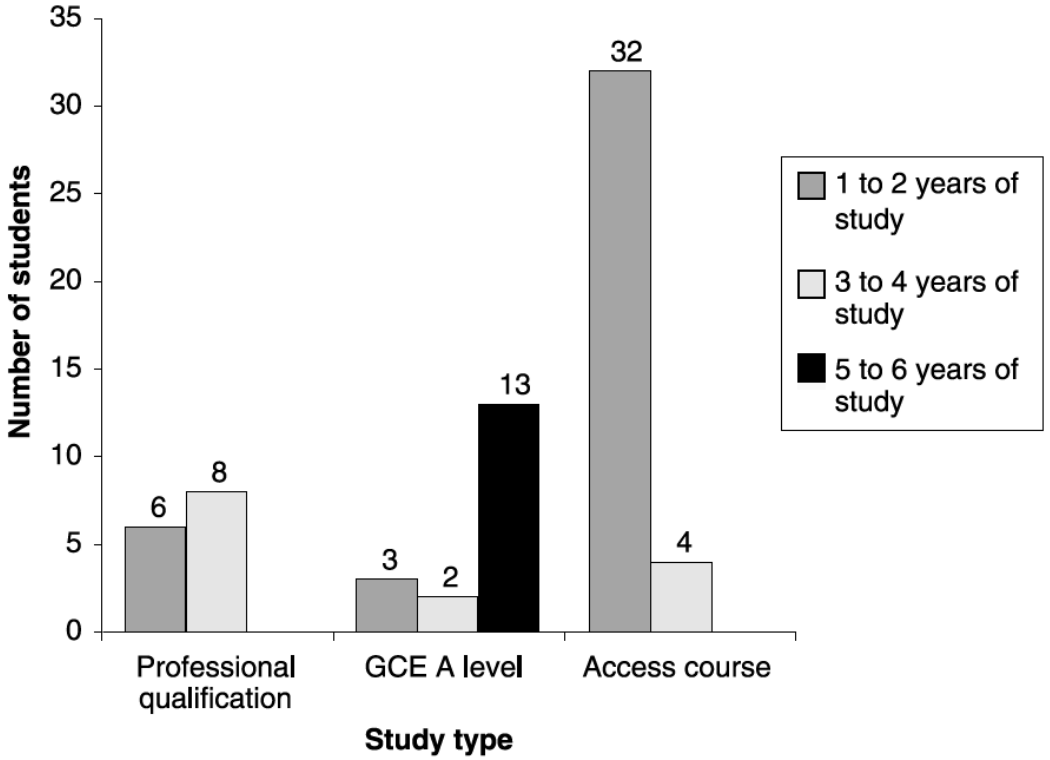


Figure 12.4 Years spent on study since the age of 18

Likert scale

Question 12.4 I consider my chances of doing well in finals are good

Strongly disagree	*Disagree*	*Undecided*	*Agree*	*Strongly agree*
1	2	3	4	5

Table 12.4 Levels of agreement among mature students that chances of success in finals are good

Strongly disagree	*Disagree*	*Undecided*	*Agree*	*Strongly agree*	*Totals*
10 (20%)	7 (14%)	6 (12%)	16 (32%)	11 (22%)	50 (100%)

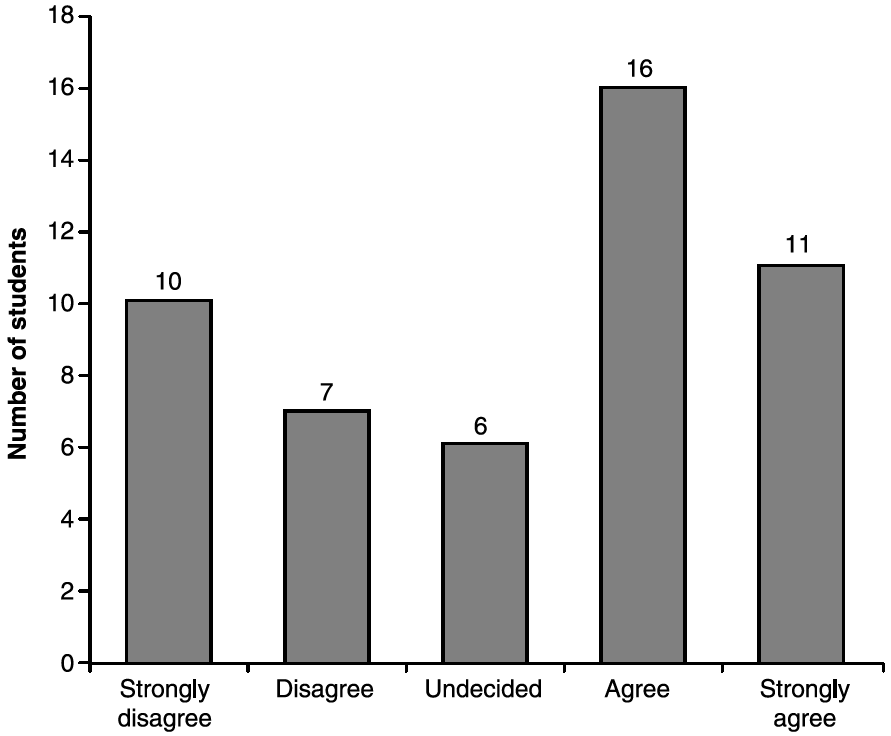
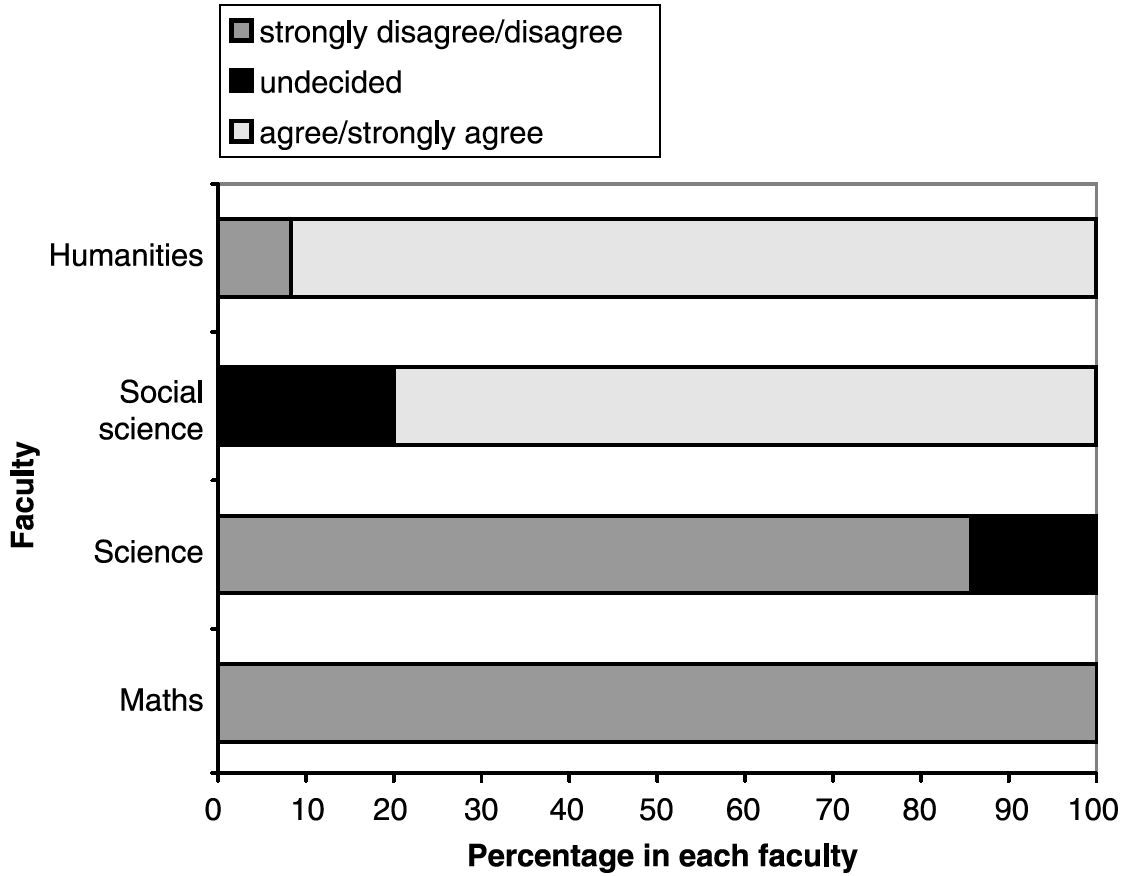
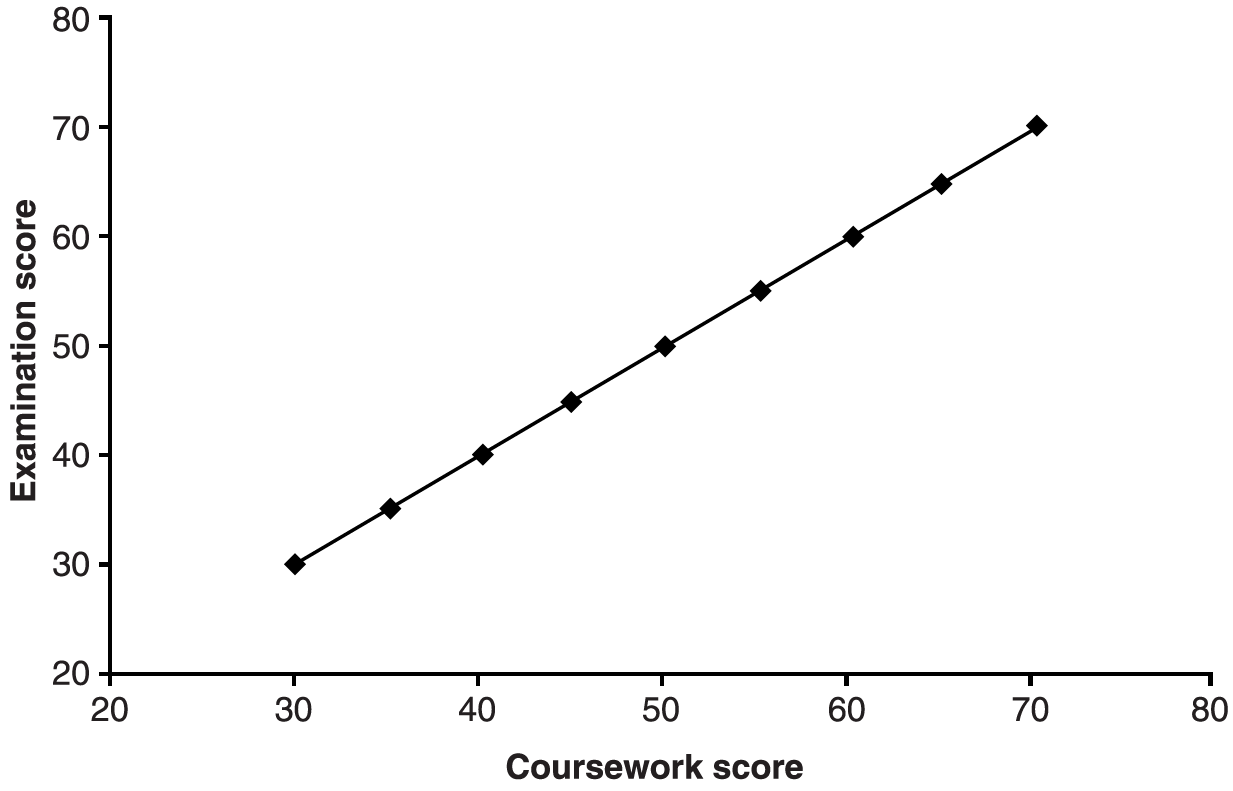
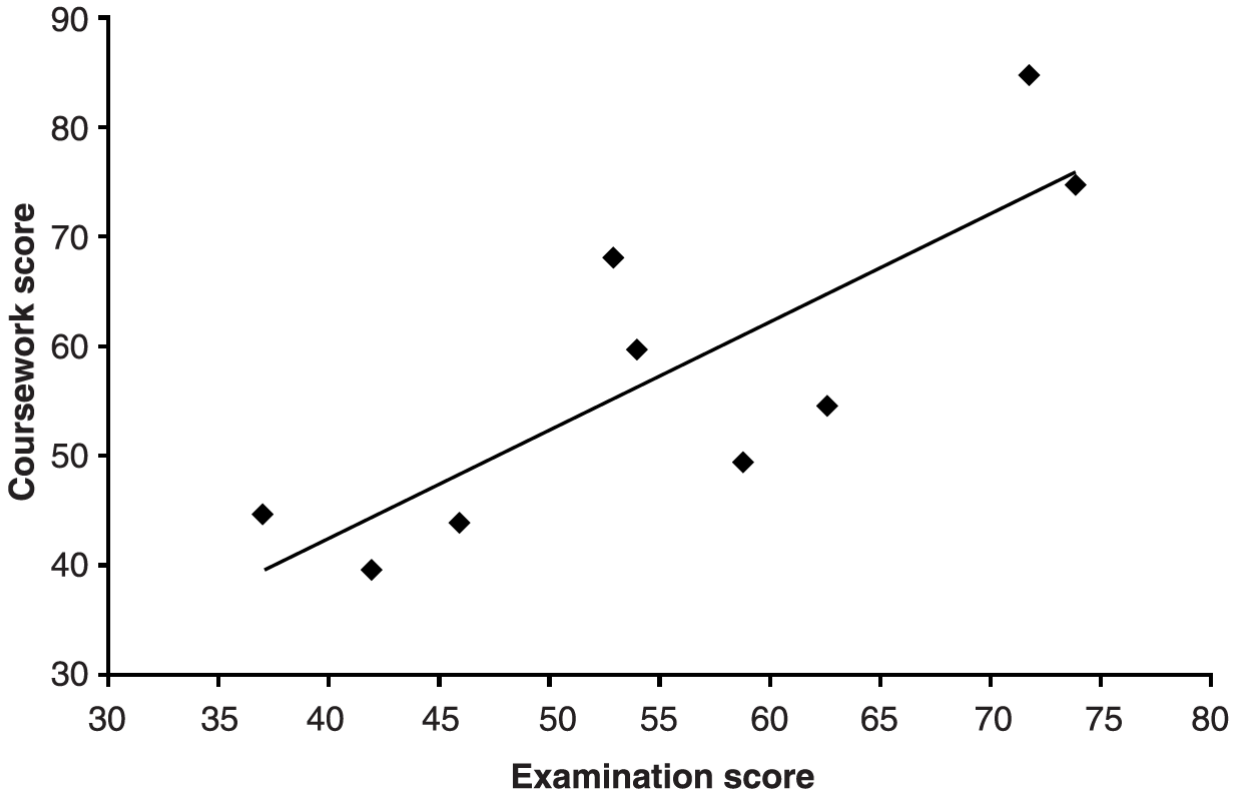


Figure 12.5 Levels of agreement among mature students (n = 50) that chances of success in finals are good


strongly disagree/disagree
undecided
agree/strongly agree
Humanities
Social science
Science
Maths
Faculty
0
10
20
30
40
50
60
70
80
90
100
Percentage in each faculty


80
70
60
50
40
30
20
Examination score
20
30
40
50
60
70
80
Coursework score


90
80
70
60
50
40
30
Coursework score
30
35
40
45
50
55
60
65
70
75
80
Examination score

Verbal questions

- Questions will often provide useful pointers to the types of issues it may be worthwhile to follow up in interviews
- If you are interested in discovering whether students identify any barriers to learning, you will be looking particularly for statements which relate to problems with study, tutor support, and so on

Interpreting the evidence and reporting the findings checklist

1. All data must be recorded as soon as they are available.
2. Look for similarities, groupings, clusters, categories and items of particular significance
3. First-thoughts categories will be a start in the process of collating findings.
4. Prepare final summary sheets.
5. Experiment with different ways of presenting findings. Tables, bar charts, histograms? Other diagrams or graphs?

Interpreting the evidence and reporting the findings checklist(2)

6. If you need to discover the average of certain values, decide whether the mean, median or mode is the most suitable.
7. Used on their own, means and medians may not be sufficiently descriptive to provide a complete picture of the data.
8. Try out codes for your data. If you plan to use computer statistical packages, you will require numerical codes. If not, letters will suffice.
9. All data require interpretation
10. Don’t claim more for your research than your evidence will support.

References

- Judith Bell - Doing Your Research Project (Open Up Study Skills) (2010, Open University Press)