

Research Methods

Task 1: Chi-squared Practice

A researcher was interested in children's perception of play and the influence of this on performance in learning activities.

Based on previous research, the researcher identified two potential factors that may cause a child to view an activity as 'playful' – that the activity is performed on the floor rather than sitting at a table, and the activity is performed without an adult rather than an adult being directly present during the activity. The researcher wanted to verify that this finding was also applicable to her children. To do this she presented the children in a reception class (40 children) with four photographs of classroom activities – one showing children performing an activity at a table, one showing children performing an activity on the floor, one showing children performing an activity with an adult present, one showing the children performing the activity without the direct presence of an adult. For each picture, the child had to say whether the activity on the picture was 'play' or 'not play'. The researcher then collated the responses into two tables as follows:

Table 1: Responses to the table/floor photographs

Response	Location	
	Table	Floor
Play	16	28
Not play	24	12

Table 2: Responses to the adult present/not present photographs

Response	Adult	
	Present	Absent
Play	17	22
Not play	23	18

Task

Set up these two tables in SPSS and do the relevant chi-squared analyses

- Is there a significant association between location and play/not play responses?
- Is there a significant association between adult presence and play/no play responses?

Task 2:

The following data has been collected

	Calorie intake		
Diabetic	Low	Medium	High
Type I	44	30	26
Type II	18	27	55

Task

Set up SPSS and do the relevant chi-squared analyses

- Is there a significant association between diabetic type and calorie intake?
- Which calorie intake category contributes the most to the association?