

LEARNING CHECK

Kevin Zabel and his colleagues (Zabel, Christopher, Marek, Wieth, & Carlson, 2009) conducted a study in which they asked people to invest hypothetical money among mutual fund choices that varied in how risky they were. That is, some mutual funds offered potential for large payoffs but carried a lot of risk, whereas other mutual funds were fairly safe investments but offered less chance for large payoffs. Zabel et al. wanted to see whether people's age and sensation-seeking tendencies were correlated with the riskiness of the investments selected. Sensation was measured with the Hoyle, Stephenson, Palmgreen, Lorch, and Donohew (2002) 8-item Brief Sensation Seeking Scale on which participants responded to items such as "I would love to have new and exciting experiences, even if they are illegal" on a 1 (*not at all characteristic of me*) to 7 (*extremely characteristic of me*) response range. Here is the SPSS output from their analyses:

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
Age	35.8717	18.95206	265
Sensation Seeking	3.4034	1.28190	298
Risk-taking	9.2620	3.45799	294

Correlations

		Age	Sensation Seeking	Risk-taking
Age	Pearson Correlation	1	-.589**	-.225**
	Sig. (2-tailed)		.000	.000
	N	265	265	260
Sensation Seeking	Pearson Correlation	-.589**	1	.239**
	Sig. (2-tailed)	.000		.000
	N	265	298	293
Risk-taking	Pearson Correlation	-.225**	.239**	1
	Sig. (2-tailed)	.000	.000	
	N	260	293	294

** . Correlation is significant at the 0.01 level (2-tailed).

Answer the following questions:

- Why is the correlation between the first row (variable Age) and the first column (variable Age) precisely 1?
A: That's because it is reporting a correlation between Age (in the first row) and Age (in the first column). This is simply a function of how SPSS generates a correlation matrix. If you look carefully at this matrix, you will see that it contains the correlations between all of the variables in two separate places in the matrix. For example, the correlation between Age and Sensation Seeking is $r = -.589$. This correlation is displayed twice in the matrix, just so you know what's going on.