**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_**

**SAS 1: Using Scatterplots in Reports Day 02**

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| --- | --- |
| 1. When analyzing a display of bivariate statistics, you need to consider the following:  * Form— Does the graph exhibit a linear or nonlinear pattern? * Direction— Does the graph exhibit a positive relationship, a negative relationship, or neither? * Relative strength—Are the data points tightly clustered along the line or curve (strongly associated) or are they more scattered (weakly associated)?   http://www.ct4me.net/images/Scatterplots.gif | |
| **Using the guidelines from number 7, analyze the following graphical displays. Conduct your analysis in the context of the situation.** | |
|  | |
| Form:    Direction:  Strength:  Can you make any inferences based on the graphical display? | Form:    Direction:  Strength:  Can you make any inferences based on the graphical display? |
| 1. The following graph illustrates the fact that for a designated filing status and taxable income level, the amount of tax owed depends on the number of children.     Does this sound like a cause-and-effect relationship or simply a matter of an association between the variables? Justify your answer. | |
| 1. The graph shown below illustrates that in general older men have wives about their age and younger men have wives about their age.     Does this sound like a cause-and-effect relationship or simply a matter of an association between the variables? Justify your answer. | |
| 1. A news report noted, “As men age, they begin to run slower.” Does this report imply cause and effect or association? What is your opinion of this implication? Explain. | |
| 1. A special report on the evening news exposed a startling fact: When more doctors are on duty at a hospital, more deaths occur. Does this mean that doctors are killing patients? What are some other explanations? | |
| 1. In the last 40 years, spending on education has increased, while SAT scores have gone down.   **Average SAT scores**  a) Sketch a scatterplot that represents these trends.  b) Does increased spending cause a  drop in SAT scores? Explain your reasoning.    **$ spent on education** | |