

**PSY 223 Scenarios and Data Sets**

**Scenario 1 (Child and Adolescent Development)\***

The question was investigated of whether (a) age at which infants start to crawl is related to (b) seasonal temperature six months after birth. “Six months after birth” was targeted as the period in which babies typically first try crawling. For a large sample of babies, (a) time at which crawling actually began and (b) average monthly temperature six months after the birth month were collected. The data are shown below (also found in the [Data Set Scenario 1 Excel file](#)).

Month	Average Age Starting to Crawl (weeks)	Average Temperature 6 Months After Birth Month (in units Fahrenheit)
January	29.84	66
February	30.52	73
March	29.70	72
April	31.84	63
May	28.58	52
June	31.44	39
July	33.64	33
August	32.82	30
September	33.83	33
October	33.35	37
November	33.38	48
December	32.32	57

\* Adapted from this study: Benson, J. B. (1993). Season of birth and onset of locomotion: Theoretical and methodological implications. *Infant Behavior and Development*, 16, 69–81.

### Scenario 2 (Forensic Psychology)

Levels of groups' certainties about their eyewitness testimony to a simulated crime were compared. The first group was set up to be "right" in its eyewitness accounts and the second group was set up to be "wrong"; the desire was to see if confidence differed across groups. Thirty-four participants were recruited from a college campus and randomly divided into two groups, both of which were shown a video of a crime scenario (length: 58 seconds) in which the perpetrator's facial characteristics (with respect to the camera) were clearly visible at two separate points and sporadically visible at others. Half the participants then were shown a five-individual lineup that contained the perpetrator in the video ("Group A"), and half the participants were shown a five-individual lineup that did not contain the perpetrator ("Group B"). Participants were asked to (a) identify if and where the perpetrator was in the lineup and (b) provide a rating of confidence on a scale from 1 to 10 (10 being highly confident) that the selection was the same as the person seen in the video committing the crime. All participants signed consent forms, were told they could leave the study at any time, and were told they would be debriefed. Data on the confidence ratings are shown below (also found in the [Data Set Scenario 2 Excel file](#)).

Group A Confidence	Group B Confidence
07	10
10	05
09	05
10	10
08	07
05	06
10	10
10	09
01	03
10	06
05	04
06	10
07	10
06	10
04	03
05	07
10	08

### Scenario 3 (Mental Health)

The efficacy of two kinds of cognitive-behavioral therapy (CBT) in relation to a clinical population were compared. The therapies differed on the dimension of how wedded they were to the rational-emotive behavioral therapy (REBT), a subtype of CBT that emphasizes a directive, confrontational approach to encourage a patient to recognize the irrationality of specific thought patterns. Forty adolescents at an inpatient clinic for treatment of self-destructive behaviors were randomly divided into two groups of equal size, one of which received the less challenging type of CBT (Treatment A) and one of which received the more challenging kind of CBT (Treatment B). All patients were treated by trained therapists in one-on-one sessions for 1.5 hours per day (broken down into 45-minute sessions) for six weeks. All participants were apprised that they were part of a study, all participants signed consent forms, and all were told they would be informed of the results at its conclusion; participants exhibiting any behaviors that required critical intervention were promptly treated outside the plan of the study. Outcome data on the Revised Behavior Problem Checklist (RBPC)-PAR Edition\* collected at the conclusion of six weeks as shown below (also found in the [Data Set Scenario 3 Excel file](#)).

Treatment A	Treatment B
74	80
50	82
70	49
60	44
30	60
37	65
34	77
40	45
39	51
70	70
19	53
43	16
25	38
15	44
20	29
55	51
48	54
42	46
60	18
27	61

\* Instrument has been validated for use with the population under consideration.

#### Scenario 4 (Addictions)

The efficacy of a new addiction medication was evaluated in a randomized, placebo-controlled, double-blind study. The medication in question, Antaquil, is intended to moderate the symptoms of alcohol withdrawal and craving with minimum side effects. Over the course of three weeks, a sample of 36 individuals who were recovering from alcohol addiction were randomly assigned to two groups: one administered the medication and one administered a placebo. At the end of the designated period, participants were administered the Obsessive Compulsive Drinking Scale (OCDS), an instrument that provides a global measure of thoughts about alcohol during nondrinking periods. Scores can range from 0 to 40 with higher scores signaling higher levels of rumination about alcohol. Prior to participation participants were all informed of the nature of Antaquil and were told they could leave the study at any time. Outcome data on the OCDS are shown below (also found in the [Data Set Scenario 4 Excel file](#)).

Treatment Gp	Placebo Gp
40	37
35	35
27	34
18	24
30	29
28	14
11	23
23	25
30	32
13	37
16	30
17	30
26	29
22	22
19	23
17	31
29	28
10	20

### Scenario 5 (Social Psychology)

The question of whether Friday the 13th is an unusually unlucky day or whether this idea is just superstition was evaluated. Researchers in the United Kingdom examined the relation between (a) numbers of traffic accidents on past Friday the 13ths versus (b) numbers of accidents occurring on Friday the 6ths (all between July 1990 and November 1992).<sup>\*</sup> The data shown below were collected (also found in the [Data Set Scenario 5 Excel file](#)).

Friday the 6th	Friday the 13th
139,246	138,548
134,012	132,908
137,055	136,018
133,732	131,843
123,552	121,641
121,139	118,723
128,293	125,532
124,631	120,249
124,609	122,770
117,584	117,263

<sup>\*</sup> Adapted from this study: Scanlon, T. J., Luben, R. N., Scanlon, F. L., & Singleton, N. (1993). Is Friday the 13th bad for your health? *British Medical Journal*, 307, 1584–1586.

**Scenario 6 (Applied Psychology)\***

The question was investigated of whether pleasant aromas help a student learn better. All 22 participants learned both under a condition of smelling nothing and under a condition of smelling a floral scent. Counterbalancing was followed so that some participants learned without the scent first and some learned with the scent first. All participants were apprised that the scents were “safe” and that if they wished they could leave the study at any time. Data in terms of “time (in seconds) to complete a pencil and paper maze” are shown below (also found in the [Data Set Scenario 6 Excel file](#)).

Unscented-Trial	Scented-Trial
38.4	53.1
46.2	54.7
72.5	74.2
38.0	49.6
82.8	53.6
33.9	51.3
50.4	44.1
35.0	34.0
32.8	34.5
60.1	59.1
75.1	67.3
57.6	75.5
55.5	41.1
49.5	52.2
40.9	28.3
44.3	74.9
93.8	77.5
47.9	50.9
75.2	70.1
46.2	60.3
56.3	59.9

\* Adapted from a study by Hirsch & Johnston at the Smell & Taste Treatment and Research Foundation: *The Data and Story Library*. (1996). Retrieved from <http://lib.stat.cmu.edu/DASL/>