**Assessment 1 (Autumn Semester 2019)**

**Scenario 1**

**Task 1**

## Draft Answer

 The above scenario presents the details regarding employees’ happiness level while working at large food manufacturing company. The researcher has taken the sample population of 250 employees, out of which the 20 responses of the employees with ‘work happiness’ are used in SPSS analysis. From these calculation, the hypothesis ‘The employees will show higher work happiness score than the population’ will be tested. From the analysis of the Table 1 given for this scenario it can be assumed that data is distributed normally.

## Statistical Analysis

* T-test

## Mean Age of Male and Female

Female = 32.3

Male = 31.6

## Outlier

No Outlier

## Change in score

Not Applicable

## Assumption of Normality Met?

Yes

(7) What were the *degrees of freedom* for the test statistic? *1 mark*

(8) What was the *value* of the test statistic? *1 mark*

(9) What was the *probability* value associated with the test statistic? (use “p < 0.001” if the SPSS output shows “0.000” in the probability box). *1 mark*

(10) What was the value of the Cohen’s *d* effect size? (write “Not applicable” if effect size is not relevant to the Scenario 1 analysis). *1 mark*

(11) Based on the value of Cohen’s *d* you might have calculated, how would you describe the effect size? (small, medium, large or “not applicable”). *1 mark*

**TASK 2**

Circle the number next to the statement which most *accurately* summarises the research findings. *2 marks*

* **The mean happiness rating of the sample was significantly higher than the population mean.**

 The statistical findings showed that most of the participants showed high rate of happiness, and thus the findings supported the hypothesis that the mean happiness rating of the sample is higher than the population mean

**TASK 3**

Sample Size

**Scenario 2**

**TASK 1**

## Draft Answer

 Scenario 2 presents a situation where a health-food company advertised their twelve-day weight gain product. For this purpose, the study took 177 patients as sample population. These patients followed the diet plan recommended by the company for 12 days, after which a survey was conducted to check their response. The findings of the collected data are expected to support the thesis ‘Mean weight after the weight-gain program was significantly higher than mean weight before the weight-gain program.’ For the collected data it is assumed that data is normally distributed

## Statistical analysis

t-test

(3) What are the standard deviations for the age of male and female participants? *1 mark*

Male =

Female =

## Outlier

Yes present

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Sex | Age | Start Weight | End Weight |
| 28 | M | 42 | 52 | 58 |

## Number changed

77

## Was the assumption of normality met for *both* sets of weight scores?

No

 (7) What were the *degrees of freedom* for the test statistic? *1 mark*

(8) What was the *value* of the test statistic? *1 mark*

(9) What was the *probability* value associated with the test statistic? (use “p < 0.001” if the SPSS output shows “0.000” in the probability box). *1 mark*

(10) What was the value of the r2 effect size? (write “Not applicable” if effect size is not relevant to the Scenario 2 analysis). *1 mark*

(11) Based on this r2, how would you describe the effect size (small, medium, large or “Not applicable”)? *1 mark*

**TASK 2**

Circle the number next to the statement which most accurately summarises the research findings. *2 marks*

* **Mean weight *after* the weight-gain program was significantly higher than mean weight *before* the weight-gain program.**

Most of the participants of the study shows a significant increase in their weight after using the recommended meals of the health food manufacturing company. Thus, the statistical findings supported the hypothesis of the study that ‘weight gain after the weight-gain program was significantly higher in the participants than the weight before the program.’

**TASK 3** *2 marks*

Lack of reliability

**Scenario 3**

A manufacturing company is planning to remove sound-reducing mufflers from 60 machines in a factory that produces cardboard boxes. The rationale is that the machines will operate more *quickly* without the muffler, hence *more* cardboard boxes will be produced each week. However, the 60 workers in the factory who operate these machines (one person per machine) will now have to wear noise-reducing earmuffs in the new, louder factory environment. The trouble is, the company is concerned the earmuffs might *inhibit* productivity, since workers will be less able to hear instructions and signals from the machines while they are operating them.

This is the company’s conundrum; while the machines will operate much faster without a muffler (hence *speeding-up* production of boxes), any increase in productivity might be counteracted by the worker’s inability to hear instructions and signals from the machine, *slowing* production of boxes. Your task it to determine which combination of conditions allows the greatest weekly output of cardboard boxes;

(1) The current work practice; *muffler installed on machine*, and *operator with* *no earmuffs* *(Condition 1)*

(2) The newly-propose work practice; *Muffler removed from machine* and *operator wearing* *earmuffs (Condition 2)*

You randomly assign 30 workers to one of the two conditions (meaning all 60 workers take part in the study, but only in one of the two conditions). The experiment is performed at the same time in two identical - but isolated – locations in the factory.

The employees are required to work in their assigned conditions for a full five-day week, starting Monday morning. On Friday afternoon (at the close of business) you record the number of cardboard boxes each worker had produced that week.

(Note: As an experimental control measure, you have determined that *before* the study is conducted, the mean production output of the 30 workers assigned to Condition 1 was equivalent to the mean production output of the 30 workers assigned to Condition 2. That is, each condition *begins* at the same production level.)

Your task is to answer the following question; which condition (1 or 2) produces the most number of cardboard boxes during a working week?

(Hint: perform a frequency analysis for sex of worker, calculate the mean/standard deviations of age, and run a test of normality SEPARATELY for Condition 1 and Condition 2).

**Task 1**

(1)Write a results section (“draft answer”). *1 mark for this “working out”*

(2) What is the name of the statistical analysis you used? *1 mark*

(3) How many levels of the IV are there? *1 mark*

(4) What is the mean *age* of Male and Female participants in Condition 1? *1 mark*

Female =

Male =

(5) Was the assumption of normality met for *both* Condition 1 and Condition 2? (Yes/No). *1 mark*

(6) Was the assumption of homogeneity of variance met for *both* conditions? (Yes/No/Not applicable) *1 mark*

(7) What were the *degrees of freedom* for the test statistic? *1 mark*

(8) What was the *value* of the test statistic? *1 mark*

(9) What was the *probability* value associated with the test statistic? (use “p < 0.001” if the SPSS output shows “0.000” in the probability box). *1 mark*

(10) What was the value of the r2 effect size? (write “Not applicable” if effect size is not relevant to the Scenario 3 analysis). *1 mark*

(11) Based on this r2, how would you describe the effect size (small, medium, large or “Not applicable”)? *1 mark*

**TASK 2**

Circle the number next to the statement which most accurately summarises the research findings. 2 *marks*

(1) Mean output for Condition 1 was significantly higher than Condition 2.

(2) Mean output for Condition 1 was significantly lower than Condition 2.

(3) Mean output for Condition 1 was not significantly different to Condition 2.

(4) Not enough information provided to determine an answer.

**TASK 3**

There is a single, obvious design flaw associated with this scenario that will potentially affect the results of the analysis. What is it? (write a single word, phrase or simple sentence only; for example “lack of reliability” or “experimenter effect”) *2 marks*

**Table 3**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ID | Sex | Age | Condition | Output | ID | Sex | Age | Condition | Output |
| 1 | F | 64 | 1 | 420 | 21 | F | 22 | 1 | 690 |
| 2 | M | 43 | 1 | 720 | 22 | M | 37 | 1 | 820 |
| 3 | F | 32 | 1 | 820 | 23 | M | 64 | 1 | 730 |
| 4 | M | 29 | 1 | 550 | 24 | F | 28 | 1 | 920 |
| 5 | F | 39 | 1 | 760 | 25 | M | 54 | 1 | 750 |
| 6 | M | 31 | 1 | 970 | 26 | F | 64 | 1 | 640 |
| 7 | M | 56 | 1 | 620 | 27 | M | 55 | 1 | 670 |
| 8 | F | 56 | 1 | 830 | 28 | M | 30 | 1 | 500 |
| 9 | M | 25 | 1 | 960 | 29 | F | 38 | 1 | 730 |
| 10 | F | 29 | 1 | 770 | 30 | M | 31 | 1 | 860 |
| 11 | F | 34 | 1 | 780 | 31 | F | 54 | 2 | 1040 |
| 12 | F | 31 | 1 | 980 | 32 | F | 39 | 2 | 810 |
| 13 | M | 19 | 1 | 840 | 33 | M | 31 | 2 | 940 |
| 14 | M | 64 | 1 | 550 | 34 | M | 60 | 2 | 1010 |
| 15 | F | 37 | 1 | 1030 | 35 | F | 39 | 2 |  |
| 16 | M | 36 | 1 | 880 | 36 | M | 28 | 2 | 900 |
| 17 | M | 63 | 1 | 920 | 37 | F | 49 | 2 | 980 |
| 18 | F | 20 | 1 | 950 | 38 | F | 49 | 2 |  |
| 19 | M | 43 | 1 | 900 | 39 | M | 40 | 2 | 1020 |
| 20 | F | 42 | 1 | 850 | 40 | F | 49 | 2 | 920 |

**Table 3 (cont.)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Sex | Age | Condition | Output |
| 41 | F | 42 | 2 | 1050 |
| 42 | F | 46 | 2 |  |
| 43 | F | 49 | 2 |  |
| 44 | F | 21 | 2 | 990 |
| 45 | F | 58 | 2 | 940 |
| 46 | M | 33 | 2 | 1000 |
| 47 | M | 25 | 2 | 1020 |
| 48 | F | 38 | 2 | 930 |
| 49 | M | 35 | 2 | 940 |
| 50 | F | 55 | 2 |  |
| 51 | F | 34 | 2 | 820 |
| 52 | F | 65 | 2 | 905 |
| 53 | M | 25 | 2 | 960 |
| 54 | F | 40 | 2 | 1100 |
| 55 | M | 34 | 2 |  |
| 56 | M | 50 | 2 |  |
| 57 | M | 27 | 2 | 1030 |
| 58 | M | 42 | 2 |  |
| 59 | M | 38 | 2 | 1010 |
| 60 | M | 21 | 2 | 1030 |

“Condition” = *Muffler installed, no earmuffs* (1) or *muffler removed, earmuffs worn* (2). Empty cells indicate missing data, meaning participant did not complete a week of work in their location. Output is personal production of carboard boxes (rounded to nearest “10” digit).

**Scenario 4**

Following completion of the last three scenarios, your next assignment seems a much simpler (and more interesting) to undertake.

A very busy coffee-shop is experimenting with two new coffee flavours. However they only have the finances to produce and serve *one* variety. Your task it to determine which coffee is the most preferred by customers.

In the space of a Wednesday morning you randomly recruit customers as they walk into the shop and offer them two large, free coffees. The variety you *serve to all customers* FIRST is called “Hot Chilli and Black Pepper”, and the second one you serve (in this order) *to all customers* is called “Creamy Marshmallow Sunday”. 43 random people agree to the offer and take a seat at your “testing table”. After each coffee, the customers are required to provide a score between 1 and 100 to signify their *liking* of the flavour (where 1 is “dislike intensely” and 100 is “The best coffee ever tasted”). That leaves you two liking scores for each person, which you can analyse and present to the shop-owners, allowing them to make a scientifically-informed decision about which new coffee flavour is liked the most, hence that will be the variety they should introduce.

**TASK 1**

(1)Write a results section (“draft answer”). *1 mark for this “working out”*

(2) What is the name of the statistical analysis you used? *1 mark*

(3) What is the *standard deviation* of the *age* of female and male participants? *1 mark*

Male =

Female =

(4) Which (if any) participant was an outlier? (Provide their ID number, or write “no outlier” if you didn’t identify anyone). *1 mark*

(5) Was the assumption of normality met for *both* coffee types? (Yes/No/Not applicable). *1 mark*

(6) Was the assumption of homogeneity of variance met? (Yes/No/Not applicable). *1 mark*

(7) What were the *degrees of freedom* for the test statistic? *1 mark*

(8) What was the *value* of the test statistic? *1 mark*

(9) What was the value of the r2 effect size? (write “Not applicable” if effect size is not relevant to the Scenario 4 analysis). *1 mark*

(10) Based on this r2, how would you describe the effect size (small, medium, large or “Not applicable”)? *1 mark*

(11) What are the upper and lower values for the 95% confidence intervals for mean difference? *1 mark*

Upper =

Lower =

**TASK 2**

Circle the number next to the statement which most accurately summarises the research findings. *2 marks*

(1) Mean liking for “Hot Chilli and Black Pepper” coffee flavour was significantly higher than for “Creamy Marshmallow Sunday” coffee flavour.

(2) Mean liking for “Hot Chilli and Black Pepper” coffee flavour was significantly lower than for “Creamy Marshmallow Sunday” coffee flavour.

(3) Mean liking for “Hot Chilli and Black Pepper” coffee flavour was not significantly different to “Creamy Marshmallow Sunday” coffee flavour.

(4) Not enough information provided to determine an answer.

**TASK 3**

You’ve mistakenly allowed a single, obvious design flaw to potentially affect the validity of your results. What is it? (write a single word, phrase or simple sentence only; for example “lack of reliability” or “experimenter effect”). *2 marks*

**Table 4**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Sex | Age | C1 | C2 |
| 1 | M | 42 | 21 | 31 |
| 2 | F | 46 | 34 | 37 |
| 3 | M | 49 | 22 | 18 |
| 4 | F | 21 | 31 | 22 |
| 5 | F | 18 | 51 | 81 |
| 6 | F | 33 | 45 | 32 |
| 7 | F | 25 | 50 | 40 |
| 8 | F | 38 | 41 | 33 |
| 9 | M | 35 | 38 | 25 |
| 10 | F | 25 | 39 | 18 |
| 11 | F | 34 | 30 | 22 |
| 12 | F | 20 | 28 | 16 |
| 13 | M | 25 | 29 | 13 |
| 14 | F | 40 | 33 | 16 |
| 15 | F | 34 | 30 | 12 |
| 16 | M | 50 | 37 | 27 |
| 17 | M | 27 | 36 | 19 |
| 18 | M | 42 | 22 | 20 |
| 19 | M | 38 | 38 | 28 |
| 20 | M | 21 | 23 | 13 |
| 21 | F | 31 | 37 | 35 |
| 22 | M | 45 | 12 | 5 |
| 23 | M | 36 | 40 | 38 |
| 24 | F | 32 | 34 | 14 |
| 25 | M | 30 | 39 | 27 |
| 26 | F | 20 | 33 | 29 |
| 27 | F | 38 | 42 | 32 |
| 28 | M | 27 | 36 | 31 |
| 29 | F | 59 | 31 | 21 |
| 30 | M | 46 | 33 | 24 |
| 31 | F | 51 | 37 | 29 |
| 32 | F | 64 | 20 | 18 |
| 33 | M | 27 | 23 | 21 |
| 34 | M | 25 | 16 | 14 |
| 35 | F | 57 | 27 | 20 |
| 36 | M | 21 | 30 | 20 |
| 37 | F | 45 | 34 | 26 |
| 38 | M | 24 | 37 | 28 |
| 39 | F | 38 | 28 | 19 |
| **Table 4 (cont.)** |  |  |  |
| 40 | M | 31 | 25 | 21 |
| 41 | M | 27 | 31 | 25 |
| 42 | F | 38 | 36 | 25 |
| 43 | M | 33 | 33 | 26 |

 “C” = Coffee type where C1 = liking score for *Hot Chilli and Black Pepper*, and C2 is liking score for *Creamy Marshmallow Sunday*.

**Scenario 5**

The IT (Information Technology) department of a very large accounting firm wants to know whether their employees’ work satisfaction is stronger NOW than it was 10 years ago. Specifically, department managers are hoping *work satisfaction* scores are higher than they were in 2009, measured using the validated “Satisfaction at Work” scale (a number from 1-100, where 1 is “extremely unhappy”, and 100 is “couldn’t be happier”).

Your task is to answer the firm’s question – are employees happier now in 2019 than in 2009? There were 38 employees in 2009, the (population) mean happiness score was 50 and the (population) standard deviation was 10 (the mean age of these employees was also 82 years).

You administer the “Satisfaction at Work” scale to the *current* 40 employees (the population) and compare their mean score with the 2009 employee group (no employee in the current 40 was working for the company back in 2009). Can you give management good news, that today’s employees are happier?

(Hint: the number 1.64 is important for this task – go to your lecture and tutorial notes to track down *why*)

**TASK 1**

(1)Write a results section (“draft answer”). *1 mark for this “working out”*

(2) What is the name of the statistical analysis you used? *1 mark*

(3) What is the *mean age* of the Male and Female participants? *1 mark*

Female =

Male =

(4) What is the *standard deviation* for *age* of the Male and Female participants? *1 mark*

Female =

Male =

(5) Which (if any) participant was an outlier? (Provide their ID number, or write “no outlier” if you didn’t identify anyone). *1 mark*

(6) If there was an outlier, what number did you change their score to? (write “Not applicable” if there was no outlier). *1 mark*

(7) Was the assumption of normality met for the set of sample scores? (Yes/No/Not applicable) *1 mark*

(8) Was the assumption of homogeneity of variance met? (Yes/No/Not applicable). *1 mark*

(9) What was the *value* of the test statistic? *1 mark*

(10) Was the *probability* value associated with the test statistic greater or less than 0.05? (greater/less than) *1 mark*

(11) In this style of statistical test, the value of 1.64 is important. What probability does this correspond to? (Hint: provide a probability value here, rounded to two decimal places). *1 mark*

**TASK 2**

Circle the number next to the statement which most accurately summarises the research findings. *2 marks*

(1) Mean “work satisfaction” is significantly higher in 2019 employees compared to 2009 employees.

(2) Mean “work satisfaction” is significantly lower in 2019 employees compared to 2009 employees.

(3) Mean “work satisfaction” is not significantly different between 2019 employees and 2009 employees.

(4) Not enough information provided to determine an answer.

**TASK 3**

There is a single, obvious design flaw associated with this scenario that will potentially affect the results of the analysis. What is it? (write a single word, phrase or simple sentence only; for example “lack of reliability” or “experimenter effect”) *2 marks*

**Table 5**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ID | Sex | Age | Score | ID | Sex | Age | Score |
| 1 | M | 19 | 70 | 21 | M | 30 | 73 |
| 2 | F | 19 | 78 | 22 | M | 28 | 75 |
| 3 | M | 22 | 76 | 23 | F | 25 | 76 |
| 4 | F | 21 | 83 | 24 | F | 28 | 83 |
| 5 | M | 23 | 75 | 25 | M | 20 | 73 |
| 6 | M | 30 | 85 | 26 | M | 25 | 75 |
| 7 | F | 23 | 80 | 27 | F | 28 | 74 |
| 8 | F | 25 | 74 | 28 | M | 22 | 94 |
| 9 | F | 20 | 76 | 29 | F | 27 | 62 |
| 10 | M | 21 | 68 | 30 | F | 23 | 65 |
| 11 | F | 19 | 74 | 31 | F | 22 | 83 |
| 12 | M | 18 | 78 | 32 | M | 27 | 95 |
| 13 | F | 26 | 66 | 33 | M | 31 | 76 |
| 14 | M | 28 | 85 | 34 | M | 22 | 66 |
| 15 | M | 27 | 94 | 35 | M | 24 | 85 |
| 16 | F | 21 | 90 | 36 | F | 22 | 87 |
| 17 | M | 25 | 82 | 37 | F | 32 | 75 |
| 18 | M | 26 | 76 | 38 | M | 23 | 74 |
| 19 | F | 27 | 72 | 39 | F | 26 | 72 |
| 20 | F | 26 | 89 | 40 | F | 30 | 64 |

 “Score” is score on the “Satisfaction at Work” scale (0 – 100).

**Scenario 6**

The same accounting firm is very happy with your work on the last project (Scenario 5). Now they want to know if their proposed “Love your Job” campaign will improve *current* employees’ work satisfaction in 2019. This applies to ALL employees, not just the 40 in the IT department you utilised in Scenario 5.

Specifically, at the completion of the “Love your Job” campaign, will those employees who were initially the least happy show an improved work satisfaction score that is now equivalent to the happiest employees?

*Before* the firm implements their campaign, you administer a validated survey to measure the “work satisfaction” of the 147 employees in the company. The survey measures employee’s attitudes about their current employment status, and their future in the firm, on a scale from 0-10; where a low score signifies low job satisfaction, and a high score signifies high job satisfaction.

From the 147 scores, you select the bottom-scoring 25 employees (indicating very low job satisfaction) and the top-scoring 25 employees (indicating very high job satisfaction). The bottom-scoring employees provide a mean score of approximately 4 out of 10. The top-scoring employees provide a mean score of approximately 9 out of 10.

The firm then implements the month-long “Love your Job” campaign (which involves daily activities employees must complete with the expectation that they’ll love their job more at the end of the month than they did at the beginning of the month).

At the conclusion of the month-long campaign you re-call the 50 employees (25 low satisfaction, 25 high satisfaction) and ask them to complete a second, equivalent “work satisfaction” survey which also uses a 0-10 scale, where the higher the score, the more positive the participant’s work satisfaction. You assume that the campaign will not necessarily improve scores for the *high* job satisfaction employees (since they’re as happy as they can ever be). However, you expect scores will improve for the *low* job satisfaction group.

Therefore, assuming the “Love your Work” campaign is valid and can improve employee work satisfaction, you predict that the mean score of the low satisfaction group *following the campaign* will increase and be equivalent to the mean score of the high satisfaction group.

(Hint: perform a frequency analysis for sex of employee, calculate the mean/standard deviations of age, and run a test of normality SEPARATELY for Condition 1 and Condition 2).

**TASK 1**

(1)Write a results section (“draft answer”). *1 mark for this “working out”*

(2) What is the name of the statistical analysis you used? *1 mark*

(3) What is the mean age of female and male participants in the *high satisfaction* group? *1 mark*

Female =

Male =

(4) Which (if any) participant was an outlier? (Provide their ID number, or write “no outlier” if you didn’t identify anyone). *1 mark*

(5) Was the assumption of normality met for *both* groups? (Yes/No) *1 mark*

(6) Was the assumption of homogeneity of variance met? (Yes/No/ Not applicable). *1 mark*

(7) What were the *degrees of freedom* for the test statistic? *1 mark*

(8) What was the *value* of the test statistic? *1 mark*

(9) What was the *probability* value associated with the test statistic? (use “p < 0.001” if the SPSS output shows “0.000” in the probability box) *1 mark*

(10) What was the value of the r2 effect size? (write “Not applicable” if effect size is not relevant to the Scenario 6 analysis). *1 mark*

(11) Based on this r2, how would you describe the effect size? (small, medium, large or “Not applicable”)? *1 mark 1*

**TASK 2**

Circle the number next to the statement which most accurately summarises the research findings. *2 marks*

(1) Mean “work satisfaction” is significantly *higher* for the “low satisfaction” employee group compared to the mean for the “high satisfaction” employee group.

(2) Mean “work satisfaction” is significantly *lower* for the “low satisfaction” employee group compared to the mean for the “high satisfaction” employee group.

(3) Mean “work satisfaction” for the “low satisfaction” employee group is *not significantly different* to the mean for the “high satisfaction” employee group.

(4) Not enough information provided to determine an answer.

**TASK 3**

You’ve mistakenly allowed a single, obvious design flaw to potentially affect the validity of your results. What is it? (write a single word, phrase or simple sentence only; for example “lack of reliability” or “experimenter effect”) *2 marks*

**Table 6**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ID | Sex | Age | Group | Score | ID | Sex | Age | Group | Score |
| 1 | M | 39 | 1 | 6 | 26 | M | 30 | 2 | 7 |
| 2 | F | 59 | 1 | 7 | 27 | M | 48 | 2 | 6 |
| 3 | M | 29 | 1 | 6 | 28 | F | 25 | 2 | 5 |
| 4 | F | 59 | 1 | 5 | 29 | F | 48 | 2 | 7 |
| 5 | M | 23 | 1 | 6 | 30 | M | 50 | 2 | 6 |
| 6 | M | 37 | 1 | 7 | 31 | M | 55 | 2 | 4 |
| 7 | F | 36 | 1 | 6 | 32 | F | 38 | 2 | 5 |
| 8 | F | 56 | 1 | 8 | 33 | M | 42 | 2 | 6 |
| 9 | F | 40 | 1 | 5 | 34 | F | 57 | 2 | 7 |
| 10 | M | 41 | 1 | 6 | 35 | F | 53 | 2 | 8 |
| 11 | F | 49 | 1 | 7 | 36 | F | 22 | 2 | 7 |
| 12 | M | 37 | 1 | 8 | 37 | M | 37 | 2 | 6 |
| 13 | F | 26 | 1 | 7 | 38 | M | 60 | 2 | 5 |
| 14 | M | 38 | 1 | 6 | 39 | M | 42 | 2 | 7 |
| 15 | M | 27 | 1 | 5 | 40 | M | 54 | 2 | 6 |
| 16 | F | 51 | 1 | 7 | 41 | F | 52 | 2 | 4 |
| 17 | M | 25 | 1 | 7 | 42 | F | 52 | 2 | 5 |
| 18 | M | 26 | 1 | 6 | 43 | M | 43 | 2 | 7 |
| 19 | F | 47 | 1 | 2 | 44 | F | 26 | 2 | 6 |
| 20 | F | 46 | 1 | 7 | 45 | F | 60 | 2 | 8 |
| 21 | M | 36 | 1 | 8 | 46 | F | 49 | 2 | 7 |
| 22 | F | 36 | 1 | 7 | 47 | M | 40 | 2 | 9 |
| 23 | M | 38 | 1 | 6 | 48 | F | 51 | 2 | 3 |
| 24 | F | 42 | 1 | 9 | 49 | M | 38 | 2 | 6 |
| 25 | M | 43 | 1 | 8 | 50 | M | 29 | 2 | 7 |

“Group” = Participation in either the low work or high work satisfaction groups, where 1 = Low satisfaction and 2 = High satisfaction. “Score” is score on the work satisfaction scale (0 – 10).

**END OF ASSESSMENT 1**