

The analysis of two data sets: A nine-student pre-and post-survey comparison, and a post-data analysis of 124 students. Data was used from surveys completed before and after the Fall 2016 tutoring sessions.

# Student Data Analysis

Fall 2016

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# PRE- AND POST-PROGRAM SURVEY ANALYSIS

## *Data Cleaning*

Out of a possible 33 pre-and 54 post surveys, first and last name pairs were made for 9 surveys. In the case where last names were not provided, there were an additional two surveys. However, to ensure more conclusive results, results from these two surveys were not factored in. Additionally, there were several post-survey evaluations with student names written in Arabic. Using google, these names were translated into English and were ultimately found to have no match to pre-survey results. They were therefore disregarded in these findings. Additionally, one student filled out the survey 3 separate times, which should be factored into longer-term data analysis.

Therefore, this analysis is based on 27% of the pre-surveys, and 17% of post surveys. While this may not be the overwhelming majority of students, we should still take this information seriously, as it potentially reflects students' opinions of the program.

## *Questions and Results*

Four of nine (4:9) students are returning students to PA, and the other 5 are new.

- 1) "I Feel Confident with my English Skills"
  - a. Pre-survey results indicate 7 of 9 students feel comfortable.
  - b. Post-survey results indicate the same number of students (7:9) feel comfortable with their English skills.
    - i. Of these students, 5 feel that their English has improved significantly after the beginning of their PA tutoring lessons.
    - ii. The remaining 4 feel that their English has improved, but to a lesser extent
      1. (Two students rated their improvement a "7 out of 10" and 2 a "6 out of 10")
      2. The average score was 7.3 out of 10.
- 2) "I can speak English"
  - a. In the pre-survey, students rated this question an average of 6.4
    - i. Range between 5-10.
  - b. In post-surveys, the average score increased to a 7
    - i. The range increased from 5 to 6, but lowered from 10 to 9. (6-10 range).
  - c. Average scores indicate a 4% increase.

- i. However, if the “-4” outlier is removed from the dataset, the average percent of improvement is 10% and would be considered a noteworthy improvement this program.
- 3) “I want to focus on...”
  - a. This is a pre-survey question only.
    - i. 7 of 9 students wanted to focus on speaking,
    - ii. 1 on grammar
    - iii. 1 on writing.
- 4) “I am comfortable using my English in a University or Work setting”
  - a. Pre-survey results indicate 5 of 9 students answering “Yes” to this question
  - b. Post-survey results show 7 of 9 students answering “Yes”
    - i. An Improvement of 22%
- 5) “Previously I did not have access to English education because of financial reasons”
  - a. This is a pre-survey question only.
    - i. This was “true” for 8 of 9 students,
      - 1. This is potentially good marketing material.
- 6) “What has your access to English education been, prior to participating in Paper Airplanes?”
  - a. 4 answered “limited”
  - b. 3 students answered “moderate”
  - c. 1 student listed “no access”
  - d. 1 answered “internet”
    - i. Results prove that PA increases access to English education
- 7) “I am satisfied with my experience with Paper Airplanes”
  - a. This is a post-survey question only
    - i. Average score of 8.2
    - ii. Range: 2 10’s, 2 9’s, 3 8’s, and 2 6’s
      - 1. All above-average ratings.
- 8) “How did you like your experience with Paper Airplanes?”
  - a. Positive results

### *Logistics Data*

- 1) 8 of 9 students had access to Google Docs during their lessons
- 2) 6 of 9 students use their smart phone to skype with their tutor, the remaining 3 use a computer
- 3) All students would like to participate in another term

- 4) One student suggested a CV workshop that PA students could access, outside of their normal tutor hours.
- 5) Another stressed the importance of obtaining their TOFEL, and how this has set them back.

## *Analysis*

In comparison to the analysis conducted in the forthcoming portion, these 9 students indicate relatively positive and high rates of both experience with Paper Airplanes and educational trajectory. There are several possibilities for this large discrepancy when compared to the analysis that follows:

- 1) The personality of students who complete a pre-data with little incentive might be more responsible, or more dedicated to the program, therefore getting more out of the experience
- 2) Conducting a random sampling analysis (which is essentially what this is) typically has inconsistent results when compared to the majority of students.

# ALL POST-PROGRAM SURVEY ANALYSIS

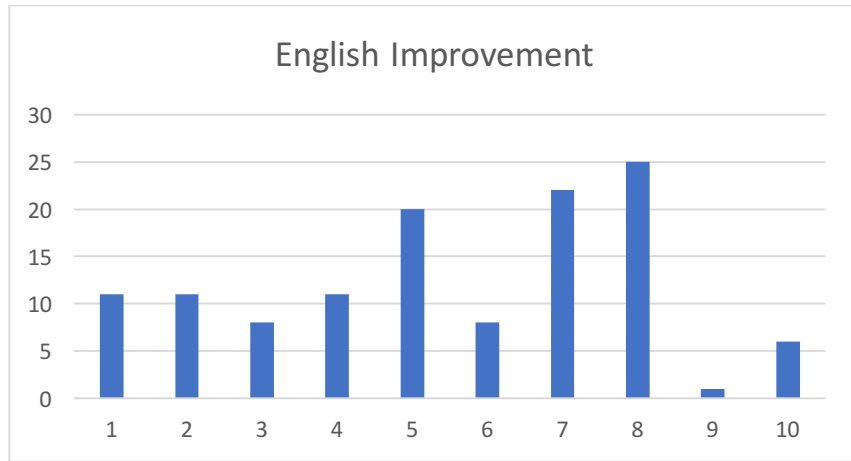
## *Data Cleaning*

Data was organized in alphabetical and numerical order, but not altered or adjusted in information reflected. The following results are based on 124 participants, completing the form in both English and Arabic. When necessary, Google translate was utilized to interpret student results.

## *Questions and Results*

- 1) "I wanted to focus on"
  - a. 11 – Grammar ~ 9%
  - b. 2 – reading ~ 2%
  - c. 97 –Speaking ~ 77%
  - d. 14 – Writing ~ 11%
  
- 2) "I feel that my English has improved since my tutoring lessons began."
  - a. Average 5.48
    - i. Range of scores

Score	# of results
1	11
2	11
3	8
4	11
5	20
6	8
7	22
8	26
9	1
10	6



ii.

3) "I can speak English"

a. Average 5.8

i. Range of Scores

Score	# of Results
1	9
2	8
3	9
4	10
5	14
6	14
7	23
8	25
9	7
10	5



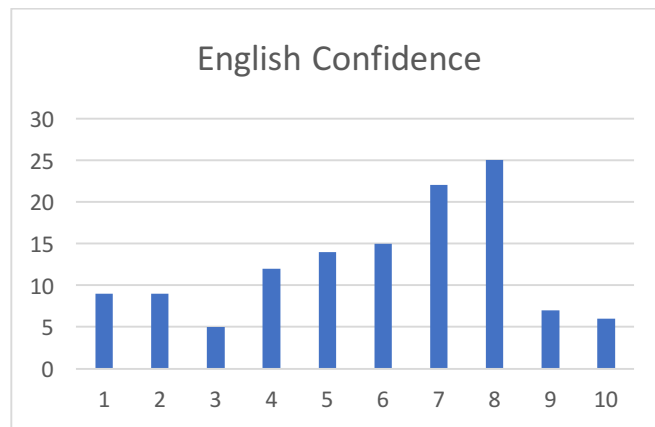
ii.

4) "I Feel Confident with my Current English Skills"

a. Average 5.86

i. Range of Scores:

Score	# of Results
1	9
2	9
3	5
4	12
5	14
6	15
7	22
8	25
9	7
10	6



ii.

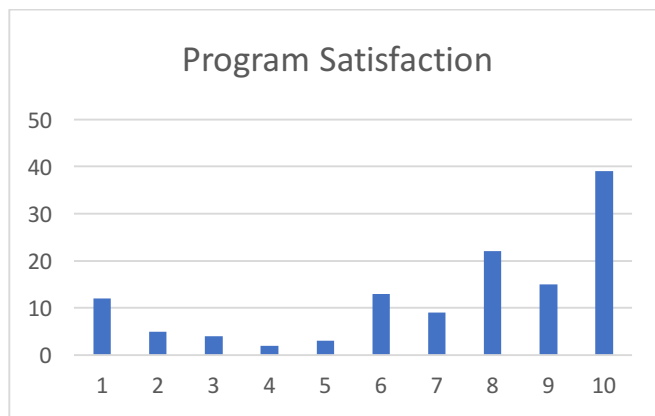
5) I am Satisfied with my Experience at Paper Airplanes

a. Average 7.25



i. Range of Scores:

Score	# of Results
1	12
2	5
3	4
4	2
5	3
6	13
7	9
8	22
9	15
10	39

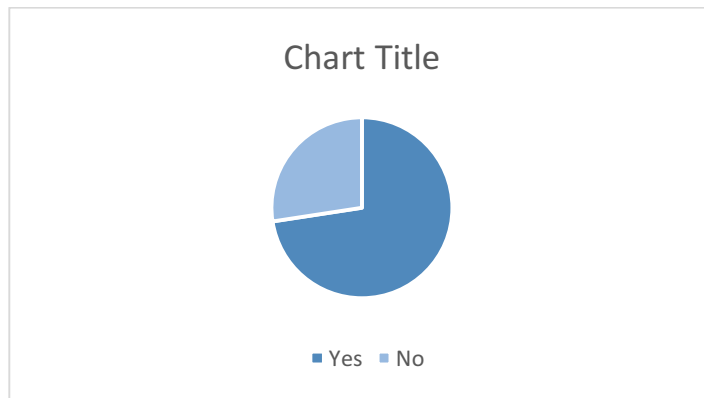


ii.

6) "I am comfortable using English in a University or Work Setting"

a. No: Yes – 34: 90

b. 73% of participants feel comfortable using their English in University or Work settings after our programs.



i.

- 7) "I want to participate in another term"
- a. No: Yes – 6:118
  - b. 95% of students want to return for another term



## *Analysis and Recommendations*

### **Overall Analysis**

Students enrolled in the program have a strong desire to focus on speaking skills, with writing at a far second place, with 11% of students wanting assistance. Therefore, our Skype program, which draws mainly on increasing speaking skills through relationship-building, addresses the primary needs of the majority of participants.

Self-evaluation questions have a wide range of responses, which allows for less accurate results. Therefore, one suggestion would be to redesign the way in which these questions are rated, by reducing the 1-10 scale to a 1-5 scale, offering "Yes" "No" answers, or allowing for a 4-point scale that would be something to the extent of "No-A Little –Somewhat-Fluently" which could, in turn, allow for a much greater understanding of student's level, and would narrow the range of results. This type of question/answer format could be applied to questions 2-6 for a better understanding of results.

### *Comparative Analysis of Questions #5 and #7*

Although 23 individuals rated below average on their satisfaction rate of Paper Airplanes, surprisingly, only 6 individuals do not want to return for services. Of the students that rated us a 1 (total of 12), 9 would like to continue participating in Paper Airplanes. This could be due to a variety of factors, some of which may include:

- 1) Students did not fully understand the question
- 2) Students were unhappy with their tutor pairing, but would like to continue next year with a different partner.

- 3) Students enjoyed their student pairing, but did not like other elements of the program.
- 4) Other variables that, upon brainstorming with other members of PA, could be brought to light.

Ways to mitigate the apparent skew in this answer could be one or several of the following:

- 1) The creation of sections in the survey, in which a section is dedicated only to evaluating the “tutor”, and another is dedicated to evaluating the “program”, which would be explicitly explained in a forward to the survey.
- 2) Explain to the students that this survey is an overall judgment of Paper Airplanes, not a review of only their tutor. However, if they have comments about their tutor, they may address these at the comments section of the survey, at the end.
- 3) Only offer the post-survey to be completed to students who attended at least 50% of their overall skype sessions.