**Uncultured? Lab Report**

**Introduction**

Have you ever been in a situation where your friends were all talking about the latest movie in theaters or a new song on the radio, and you had no idea what it was, but you pretended like you did to fit in? Do you ever feel like all of your friends are just more in touch with TV and music and “all things cool” than you are? Through my research, I intend to discover just how many of us feel that way, and find out how we rate ourselves in comparison to our peers.

**Research Question**

How does an average high school student’s estimation of the amount celebrities with which they are familiar, in comparison to their peers, compare to the amount celebrities with which they are actually familiar, in comparison to their peers? The same question is also applied to popular music.

**Hypothesis**

If I compare a high school student’s estimation of how familiar they are with celebrities in comparison to their peers and compare it to how many celebrities they actually know, in comparison to their peers, my results will show that the estimated level of familiarity is lower than the actual level of familiarity. If I apply the same test to students’ familiarity with popular music, I will see the same results.

**Experimental Procedures**

I chose 10 different celebrities, all film actors, by looking at movies that had won Oscars in recent years and choosing actors who had a supporting role. I did this to get a cross-section of celebrities, and to choose actors that are not overly well-known, but that some people would recognize. I used a similar method to find pop songs that were somewhat well-known by looking at recent top 100 song lists and then choosing a lesser known song of the artists. Once I had made up my lists I made a power point with pictures of each actor on ten different slides. I prepared the music by making a playlist on my iPod that I could play on my speakers.

For test subjects I visited three different study hall classes at Westview High School and administered the test to the people in these classes. The students were given the opportunity not to participate if they did not wish to do so. This is the script that I read to all of the participants:

*Preface:*

Hello, my name is Evan. For my senior project, I am doing a social psychology study about how much adolescents are involved with popular culture. Psychology interests me and I thought it would be interesting to research something that applies to my peers and me.

*Instructions:*

Today you will have the opportunity to be a part of an optional survey about celebrities and popular music. Anyone who does not wish to participate is not required to, but it would be preferred that you do not talk to people taking the survey. I am going to pass out the answer form for the survey. Please do not write anything on it until I tell you and please do not write your name. If you do not want to take the survey, please do not take an answer sheet (count and record how many students take an answer sheet). Please write what grade you are in at the top of the survey form where it says “grade.” Do not write your name or any other information.

*Celebrity Recognition*

For this first portion of the survey you will be shown pictures of ten different actors from different films and you are to write the name of each person pictured in part 1 of your answer form. Please write the person’s real name and not their character name from a movie they were in. Each picture will have a number that corresponds to the numbers listed on the answer form. Make sure to write your answers on part 1 of the answer form.

1. Jennifer Lawrence
2. Hailee Steinfeld
3. Terrance Howard
4. Heath Ledger
5. Michelle Monaghan
6. George Clooney
7. Ginnifer Goodwin
8. Anne Hathaway
9. Christian Bale
10. Tom Cruise

Now please answer the following question on the line at the bottom of part 1 that says “Final Question”: out of all the students taking this survey today how do you think you rank? If you think you scored higher than everyone else in the class, then you would write 1. If you think you have the second best score, then write a 2. If you think you have the third best score write a 3. If you think you scored lower than everyone else in the class write (total number of students taking the survey). Please answer as accurately as possible.

*Popular Music Recognition*

For this portion of the survey you will hear the first 30 seconds of 10 different songs and you are to write both the title of the song and the artist or group who wrote it in part 2 of your answer sheet. I will say the number for each song before playing it so that you will know what number we are on. Write the title on the line that says “title” and the artist on the line that says “artist”. Make sure to mark all of your answers for this portion in part 2 of the answer sheet.

1. Mirrors- Justin Timberlake
2. The Only Exception- Paramore
3. When I Was Your Man- Bruno Mars
4. Love Me- Katy Perry
5. What About Now- Westlife
6. Royals- Lorde
7. It’s Time- Imagine Dragons
8. Blown Away- Carrie Underwood
9. I Lose Myself- OneRepublic
10. Rewind- Rascal Flatts

Now again please write on the line at the bottom, labeled “Final Question,” how you think you rank in part 2 of the survey in comparison to everyone else who taking the test today. Again, if you think you have the highest score in the class, write 1. If you think you have the second highest score write 2. Only rank yourself at this time for part 2 of the survey. Do not include your answers from part 1.

*After Statement*

Thank you for participating in my survey today. You can come see my project and learn more about what I am studying at the senior project showcase in April.

For the first part of the test, I graded their responses on a 10-point scale, giving one point for each correct answer. For the second part, I also graded them on a 10-point scale, but gave a half point for each correct artist, and a half point for each correct song title. Using the total number of participants, I ranked each score (1 being the best and the total number of participants being the worst). I used a ranking system called fractional ranking or “1, 2.5, 2.5, 4.” This way, if two or more participants got the same score, I averaged the ranks of those participants so that it did not look like they got a higher or lower rank than they really did. Also, this kept the same amount of numbers in the ranking system as the amount of people who took the test. I then subtracted the estimated rank that I asked for on the answer sheet, from the actual rank to see the difference between the estimated rank and the actual rank.

**Results (Part 1, Group 1)**

|  |  |  |  |
| --- | --- | --- | --- |
| Score | Rank | Estimated Rank | Difference |
| 6 | 1 | 15 | 14 |
| 5 | 3 | 10 | 7 |
| 5 | 3 | 13 | 10 |
| 5 | 3 | 3 | 0 |
| 4 | 7.5 | 17 | 9.5 |
| 4 | 7.5 | 16 | 8.5 |
| 4 | 7.5 | 10 | 2.5 |
| 4 | 7.5 | 23 | 16.5 |
| 4 | 7.5 | 15 | 7.5 |
| 4 | 7.5 | 10 | 2.5 |
| 3 | 12.5 | 20 | 7.5 |
| 3 | 12.5 | 25 | 12.5 |
| 3 | 12.5 | 20 | 7.5 |
| 3 | 12.5 | 20 | 7.5 |
| 2 | 18.5 | 16 | -2.5 |
| 2 | 18.5 | 29 | 10.5 |
| 2 | 18.5 | 21 | 2.5 |
| 2 | 18.5 | 22 | 3.5 |
| 2 | 18.5 | 25 | 6.5 |
| 2 | 18.5 | 29 | 10.5 |
| 2 | 18.5 | 27 | 8.5 |
| 2 | 18.5 | 11 | -7.5 |
| 1 | 24 | 28 | 4 |
| 1 | 24 | 29 | 5 |
| 1 | 24 | 24 | 0 |
| 0 | 27.5 | 29 | 1.5 |
| 0 | 27.5 | 29 | 1.5 |
| 0 | 27.5 | 29 | 1.5 |
| 0 | 27.5 | N/A | N/A |
|  |  | Average: | 5.66 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Part 1, Group 2**  Score | Rank | Estimated Rank | Difference |
| 5 | 2 | 10 | 8 |
| 5 | 2 | 5 | 3 |
| 5 | 2 | 12 | 10 |
| 4 | 4.5 | 20 | 15.5 |
| 4 | 4.5 | 20 | 15.5 |
| 3 | 7.5 | 20 | 12.5 |
| 3 | 7.5 | 18 | 10.5 |
| 3 | 7.5 | 3 | -4.5 |
| 3 | 7.5 | 6 | -1.5 |
| 2 | 12.5 | 20 | 7.5 |
| 2 | 12.5 | 20 | 7.5 |
| 2 | 12.5 | 20 | 7.5 |
| 2 | 12.5 | 19 | 6.5 |
| 2 | 12.5 | 20 | 7.5 |
| 2 | 12.5 | 20 | 7.5 |
| 1 | 17.5 | 20 | 2.5 |
| 1 | 17.5 | 10 | -7.5 |
| 1 | 17.5 | 20 | 2.5 |
| 1 | 17.5 | 20 | 2.5 |
| 0 | 20 | 20 | 0 |
|  |  | Average: | 5.65 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Part 1, Group 3**  Score | Rank | Estimated Rank | Difference |
| 6 | 1 | 4 | 3 |
| 5 | 3 | 6 | 3 |
| 5 | 3 | 11 | 8 |
| 5 | 3 | 3 | 0 |
| 4 | 6.5 | 8 | 1.5 |
| 4 | 6.5 | 4 | -2.5 |
| 4 | 6.5 | 17 | 10.5 |
| 4 | 6.5 | 13 | 6.5 |
| 3 | 10.5 | 16 | 5.5 |
| 3 | 10.5 | 16 | 5.5 |
| 3 | 10.5 | 19 | 8.5 |
| 3 | 10.5 | 12 | 1.5 |
| 2 | 14.5 | 18 | 3.5 |
| 2 | 14.5 | 19 | 4.5 |
| 2 | 14.5 | 19 | 4.5 |
| 2 | 14.5 | 18 | 3.5 |
| 1 | 17 | 19 | 2 |
| 0 | 18.5 | 19 | 0.5 |
| 0 | 18.5 | 19 | 0.5 |
|  |  | Average: | 3.68 |

**Results (Part 2- Group 1)**

|  |  |  |  |
| --- | --- | --- | --- |
| 3.5 | 11.5 | 29 | 17.5 |
| 3.5 | 11.5 | 25 | 13.5 |
| 3.5 | 11.5 | 20 | 8.5 |
| 3.5 | 11.5 | 28 | 16.5 |
| 3.5 | 11.5 | 25 | 13.5 |
| 3.5 | 11.5 | 26 | 14.5 |
| 3 | 15.5 | 14 | -1.5 |
| 3 | 15.5 | 20 | 4.5 |
| 2.5 | 17.5 | 26 | 8.5 |
| 2.5 | 17.5 | 26 | 8.5 |
| 1.5 | 20 | 28 | 8 |
| 1.5 | 20 | 26 | 6 |
| 1.5 | 20 | 29 | 9 |
| 1 | 23.5 | 27 | 3.5 |
| 1 | 23.5 | 26 | 2.5 |
| 1 | 23.5 | 29 | 5.5 |
| 1 | 23.5 | 29 | 5.5 |
| 0.5 | 26.5 | 29 | 2.5 |
| 0.5 | 26.5 | 29 | 2.5 |
| 0 | 28.5 | 28 | -0.5 |
| 0 | 28.5 | N/A | N/A |
|  |  | Average: | 7.7 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Part 2, Group 2**  Score | Rank | Estimated Rank | Difference |
| 9 | 1 | 1 | 0 |
| 6.5 | 2 | 5 | 3 |
| 6 | 3 | 3 | 0 |
| 5 | 4.5 | 16 | 1.5 |
| 5 | 4.5 | 7 | 2.5 |
| 4.5 | 7 | 7 | 0 |
| 4.5 | 7 | 2 | -5 |
| 4.5 | 7 | 15 | 8 |
| 4 | 10.5 | 10 | -0.5 |
| 4 | 10.5 | 16 | 5.5 |
| 4 | 10.5 | 3 | -7.5 |
| 4 | 10.5 | 15 | 4.5 |
| 3.5 | 13.5 | 15 | 1.5 |
| 3.5 | 13.5 | 2 | -11.5 |
| 3 | 15 | 19 | 4 |
| 1.5 | 16 | 17 | 1 |
| 1 | 17.5 | 20 | 2.5 |
| 1 | 17.5 | 20 | 2.5 |
| 0.5 | 19 | 20 | 1 |
| 0 | 20 | 20 | 0 |
|  |  | Average: | 0.65 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Part 2, Group 3**  Score | Rank | Estimated Rank | Difference |
| 8 | 1 | 3 | 2 |
| 7.5 | 2 | 3 | 1 |
| 7 | 3 | 1 | -2 |
| 6 | 4 | 5 | 1 |
| 5 | 6 | 8 | 2 |
| 5 | 6 | 16 | 10 |
| 5 | 6 | 17 | 11 |
| 4.5 | 10 | 12 | 2 |
| 4.5 | 10 | 17 | 7 |
| 4.5 | 10 | 15 | 5 |
| 4.5 | 10 | 16 | 6 |
| 4.5 | 10 | 4 | -6 |
| 4 | 13.5 | 9 | -4.5 |
| 4 | 13.5 | 19 | 5.5 |
| 3.5 | 15 | 17 | 2 |
| 2 | 16 | 18 | 2 |
| 1.5 | 17 | 19 | 2 |
| 1 | 18.5 | 19 | 0.5 |
| 1 | 18.5 | 19 | 0.5 |
|  |  | Average: | 2.47 |

**Interpretation of Results**

Every group for both parts of the test showed that on average, the estimated rank was significantly lower than the actual rank. The difference tended to be higher for the part 1, the celebrities part of the test; however, the first group for part 2 had a very large average difference of 7.7. The ranks that the participants assigned themselves generally seemed to be reasonable. The higher ranking participants predicted higher a higher rank for themselves, while lower ranking participants gave themselves a lower rank. I did notice, however that if the participant’s score was below about 50%, the rank they assigned themselves was significantly lower than the ones with a score above 50%. In fact many with a score below 50% ranked themselves lowest in the group.

**Conclusions**

The data collected in my experiment support my hypothesis that people think they know less about celebrities and popular music, in comparison to their peers, than they actually do. A number of different factors could have caused this to occur. First, the fact that those certain celebrities and songs were in a part of the test would have led them to assume that all of them were well-known celebrities and songs that most students of that age range should be familiar with. Second, if a participant taking the test saw other people’s pencils moving to fill in a certain answer that they did not know, that would have led them to believe that other people in the room were familiar with a celebrity with whom they were not familiar. The social pressure of taking the test in a room with their peers could have amplified this feeling of isolation (being out of “the know”), causing them to give themselves a lower ranking. I have no real way of knowing how well this data actually reflects the feelings of students in a real life situation, but I believe it sheds some light on how out self-concept is affected by the people around us.

**Uncertainty Analysis**

The primary challenge in this experiment is making sure the participants understand the instructions well enough to give honest, accurate responses. My main concern was whether or not they would understand what it meant to rank themselves among their peers. Although I did my best to explain very clearly that I wanted them to rank themselves, with 1 being the best and the total number of participants being the worst, each person has a slightly different idea of what ranking means and how they would fit into the scale. The participants tended to choose easy numbers for ranks, which makes sense, because they did not have enough information to be able to make an accurate guess. Popular numbers included the total number of participants, the total number of participants minus 1 (second worst), or exactly in the middle. The availability heuristic came into play and caused many participants to simply repeat the last number they heard which was the total number of participants. The participants also could have thought I was using a different type of ranking than fractional ranking, and that could have influenced their guess as well.

Although I told the participants to keep their eyes on their own papers, there was some cheating and sharing of answers occurring during the test. Since in all of the classes I visited, the students were arranged in table groups, there was a natural tendency for them to compare answers, even if it was unintentional. This would have thrown off the data, because the scores did not completely reflect the individual work of the participants, and looking at the answer sheets of the other students would have affected the estimated rank of the participants. To solve this problem, I could have conducted my experiment in a room with desks, and required the participants to use folders to shield their answer sheets.

The ages of the students were random, because they had been randomly assigned to study hall classes with no regard to grade. However, there are naturally fewer upperclassmen who have a study hall class, because many have early release. This caused my experiment to not be an accurate cross-section of the student body of Westview in regard to age, because there were more underclassmen involved in my experiment than there were upperclassmen.

In group 1 of part 1 of the test I administered, there was one participant who clearly was attempting to throw off the data by writing in blatantly wrong answers for each blank and then ranking himself number 1 in the group. I decided to not include his score with my averages, because it would have make a significant difference in the differences between estimated rank and actual rank. I did include his raw score with the data, because I had to have the same amount of people in the data as the amount of people who took the test for the ranking system to work.