

Category: Behavioral & Social Science

Student Name: Eric Babb

Team Members (if any):

Project Title: Is Cursive Penmanship Disappearing?

Abstract: When I compared my penmanship with the penmanship of my parents and grandparents, I noticed that each generation wrote vary different from each other. My grandparents use cursive. My parents mix cursive and print together, and I only print. This made me wonder if the way people write is changing and if cursive penmanship is disappearing? I decided to do a study to find out. When I went to the library I could not find any books on the subject, so I looked for information on the internet. I found several articles that talked about how my generation cannot read or write cursive. The articles even listed some reasons why this might be happening. The biggest problem I found with the research is it did not measure the percentage of cursive used by different age groups. Is there a relationship between a person's age and the percentage of cursive characters they use in their writing? I think older individuals will use more cursive characters in their writing then younger individuals. My hypothesis was correct. There is a strong relationship between a person's age and the percentage of cursive characters they use in their writing. Older individuals are more likely to use cursive in their writing then younger individuals. I would like to figure out why cursive writing is declining. Could changes in technology be the reason, or could it be that teachers don't teach cursive penmanship as much as they used do?

Category: Behavioral & Social Science

Student Name: Kelton George

Team Members (if any):

Project Title: How Rumors Spread

Abstract: None

Category: Behavioral & Social Science

Student Name: Christian Lambert

Team Members (if any):

Project Title: Distracted Driving

Abstract: My question was, What distracts people the most while driving? My hypothesis is Cell phones will distract people the most while driving. In my experiment I tested nineteen people by having them race multiple times on the same Mario Kart Wii course. I used four variables and a control. The age range was from nine to thirty-seven. For my control I had them go around the course twice and averaged their times. I then tested them eating adjusting the radio talking on a cell phone and talking to someone with them. Overall other than a few people cell phone was the one with the best scores. Although it did have the worst. The worst time was one minute thirty-five seconds. That was for one lap. For eating and driving that had the second best times. The worst time was one minute nine seconds. By the same person who had the worst in cell phone. Best time? Thirty-seven seconds. Talking had the average time for most people. It was for one reason people do it every day. Tuning the radio/changing the volume. Worst for about everybody. The best time was thirty-nine seconds. Worst time was one minute twenty-nine seconds. Same person with the worst scores. As part of my results I found out something unexpected. For some they did worse. For others there wasn't much of a difference. For a couple of people they went faster. So my hypothesis was semi-right."

Category: Behavioral & Social Science

Student Name: Kylie Lincoln

Team Members (if any):

Project Title: R.N's are they really random?

Abstract: My Friend and I were picking random numbers one day, and much to our amazement she had picked a number we had just heard. Thinking it was just a coincidence, we tested my mom and she too picked a previously heard number. This simply happening led me to wonder if random numbers were really random. My question was, are random numbers really random? My hypothesis was that when asked to give a random number, we, unknowingly choose a number seen or heard earlier that day, like in my story. To test this, I designed a simple survey that introduced people to ten numbers. Then when they were done I would take the paper and ask this question; will you tell me a whole number between zero and one hundred that's random and not your favorite? After about a hundred people had done so I analyzed the collected data. Of the hundred people I asked only eight chose one of the numbers on the test. The data I collected proved my hypothesis incorrect. Looking at the data once more, it made sense, a hundred people and hundred numbers, and each number represents one percent of all the numbers between zero and one hundred. So it was natural that about ten percent of the people chose one of the introductory numbers. Even though I was incorrect from the data

collected, my research showed me that generating random numbers is a huge problem in our society; I plan to continue my research to help make it not become a problem.

Category: Behavioral & Social Science

Student Name: Devin Orton

Team Members (if any):

Project Title: Cell Phone Attraction Driving Distraction

Abstract: My science fair project was titled Cell Phone Attraction Driving Distraction. I have heard a lot of discussion on the dangers of driving while talking on cell phone. I read several articles on this topic. One of the articles used a driving simulation in their tests. A year ago I decided I would like to do a science fair project using a racing car simulation game. I would ask the question, Will talking on a cell phone while driving a car in a computer simulation, increase the driver's number of errors and driving time? I hooked the simulation game up to a projector and a laptop. The projector was for the drivers, to simulate a car windshield and the laptop was for me to run the program and to view their driving. I hypothesized that the focus of drivers would be on the cell phone conversation, driving 3 laps with the cell phone will increase driving time by at least a minute and driving 3 laps with a cell phone will increase the driver's number of errors i.e. hitting the wall, grass and other cars. The results were exciting. I concluded that the focus of drivers was on cell phone conversation, the number of driving errors were higher because of talking on the cell phone, talking on the cell phone did affect precision more than driving time and driving times using the cell phone were less than one minute instead of one minute or more as I had hypothesized.

Category: Behavioral & Social Science

Student Name: Davis Agle

Team Members (if any):

Project Title: Music and Its effects on Math and Logic

Abstract: I was interested in the Mosart Effect. My hypothesis was that playing musical instruments and being able to read music would increase Math and Logic skills. I asked the Nebo District for permission to test/survey 8th grade students at two junior high schools. I developed a test using standard logic questions combined with a survey of music study such as lessons taken. I gave out 600 tests and recieved back 448 responses. I inputed the data into an Excel datebase and generated pivot tables. I found playing an instrument yielded a 9% improvement in test scores and that those who read music scored 14% higher than those who don't. Moreover, the longer a student played the better the test score. Students who have played more than 5 years show a 12% improvement over average. My findings supports encouraging music education to improve overall math and logic skills.

Category: Behavioral & Social Science

Student Name: Lauren Bobo

Team Members (if any): Alyssa Brusatto

Project Title: Memory: Kids or Adults

Abstract: How many times have you heard your parents say I can't remember or a child say I forgot? We wanted to find out if kids or adults remembered color or black text better. Our hypothesis was that children would have better memory in both color and in black text. We created twenty random words for each list; one in color and one in black. We tested twenty-eight adults and twenty-eight children. The subjects were given each list to study for two minutes. Then they had to wait fifteen minutes and were given two sheets of paper with fifty colored words on one and fifty black words on the other. They needed to circle the words that they remembered from each list. They were given eight minutes to complete the tests. They missed points if they circled the wrong word or didn't circle the word on the list. The score at the top represented the number of total misses on the test. We took the raw scores and averaged them. When scoring the colored text; children missed an average of six, and adults missed an average of five. However, in black text the average missed was the same for adults and children. We were surprised that the scores were so close. Our conclusion is that the data showed that a kid's memory is as accurate as an adult's memory. Adults and kids both remembered the colored words better, with one or two mistakes less than the black words.

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Category: Behavioral & Social Science

Student Name: Jacob Dale

Team Members (if any):

Project Title: Anger and Diabetes

Abstract: For most people normal blood sugar levels are about 80-120 mg/dL. A subject with a consistent range of 126 mg/dL or 7mmol/L is said to have hyperglycemia. As I was looking through past studies and at Diabetic information, I discovered most associated low blood sugars with moodiness, anger and fatigue and defined hyperglycemia without mentioning the anger. So, I started my project with this hypothesis: Most past diabetic studies have associated anger and irritability with hypoglycemia (low blood sugar). I believe it occurs much more often with hyperglycemia (high blood sugars) and asked myself this question-How many times that a Diabetic is angry or irritable will his blood sugars be 180 mg/dL or higher? I then proceeded to do my experiment by recording data between 3 subjects. They tested 12-15 times when they showed anger or frustration and 12-15 times when they felt ok. After doing my studies, I saw by the readings that when my subjects were angry they were usually high. In fact, in all the test results but 4, they had readings above 200. When they tested and felt normal" they had readings between 80 and 200 supporting my theory."

Category: Behavioral & Social Science

Student Name: Marcquet Hill

Team Members (if any): Josh Ludlow

Project Title: Basketball Blunders

Abstract: My partner and I were testing the question how do various distractions affect free throw completion. Our hypothesis was that if we played a projection of objects moving in unison behind the backboard, then the shooters would complete less free throws. We tested our hypothesis by gathering together 12 basketball players, and having them shoot free throws in sets of ten under various conditions. Our distractions were music, fatigue, randomly moving objects, and objects moving in unison. Music was found to be the least effective and objects moving in unison the most effective.

Category: Behavioral & Social Science

Student Name: Porter Holland

Team Members (if any):

Project Title: The Correlation Between Facial Symmetry and Attractiveness

Abstract: My goal for this project was to see if there is a relationship between facial symmetry and attractiveness. My hypothesis was that the baby faces are more attractive the more symmetrical they are. I started my experiment by collecting 10 pictures of babies on the Internet. I made sure I chose pictures that were shot straight on so I could find out the true symmetry of the babies. I numbered each baby 1 -10 and then opened the babies up in Adobe Photoshop CS3. I selected each half of their face and then inverted each side and cut and pasted the two right sides together and the two left sides together. I studied and compared the right and left sides of each baby picture and noted their differences. I then categorized the pictures into three categories: One - High Degree of Symmetry, Two - Medium Degree, and Three - Low Degree of Symmetry. I then had 55 people take part in my survey. The majority of the people were students from my Junior High. I showed them an 8x10 original picture of each of the babies(they were numbered on the back). They voted for only one of the ten babies that they thought was most attractive to them. On my data sheet numbered baby 1 thru baby 10, I recorded their vote. After all the votes were collected I added them and put the numbers into their categories

and figured out the percentages. The result is that the majority of people voted for a baby in category 2 - Medium Symmetry. Based on votes my hypothesis wasn't totally proven.

Category: Behavioral & Social Science

Student Name: Justin Holmstead

Team Members (if any):

Project Title: A Colorful Conundrum

Abstract: Question: Does outside temperature affect what color shirt you choose to wear? Hypothesis: I believe that you wear COOL colors when outside temperatures are lower and you wear WARM colors when outside temperatures are higher. Procedure: I will record the local high temperature for the day from weather.com to ensure accurate temperature readings I will use a random sampling of 50 people per day from my school. I will do this by recording the first 50 people that I see coming into the cafeteria for lunch, regardless of age or gender. I will make a daily record of colors worn using tally marks I will collect data for 3 months to ensure a change of season and a variety of temperature highs I will graph the data collected and interpret the results. Results: There is a correlation between colors preference and outside temperature. Certain colors are more predominant in warmer temperatures while others increase in cooler temperatures. However, the key factor is not whether a color is considered WARM or COOL. It appears that the key factor is whether a color is considered light or dark, otherwise known as the TINT and SHADE of a hue. My data seems to support the theory that the lighter colors (or TINTED colors) increase as the temperatures rise. Also, the darker colors (or SHADED) colors) increase as the temperatures fall. Next time, I would test the hypothesis that light colors

(TINTED hues) are preferred in warmer temperatures and dark colors (SHADED hues) are preferred in cooler temperatures. Conclusion My data reveals that both warm and cool colors are worn almost equally, regardless of the outside temperature. Therefore, the key indicator to color preference cannot be linked to WARM and COOL colors. This evidence proves my hypothesis was incorrect.

Category: Behavioral & Social Science

Student Name: Sarah Insalaco

Team Members (if any):

Project Title: A Picture Is Worth...32% More Words

Abstract: Traditionally, second language (L2) vocabulary has been taught using a grammar translation method. The teacher directs the students to study the L2 vocabulary words by listing the native language (L1) words next to their L2 translations. The subsequent test follows this same translation approach. This experiment was designed to determine if connecting L2 vocabulary words with an image of each concept actually helps students learn L2 vocabulary words better than the traditional L1-L2 translation approach. A first-year junior high school Spanish class of 24 students was randomly assigned into two groups. The L1-L2 translation group received a study list with L2 Spanish vocabulary words next to their L1 English translations. The Image-L2 group received a study list with L2 Spanish vocabulary words next to an image of each concept. After ten minutes of studying, both groups were given the same vocabulary post-test that assessed their L2 Spanish vocabulary acquisition. The results show that the Image-L2 group outperformed the L1-L2 translation group by 32% on the test.

Category: Behavioral & Social Science

Student Name: Emily Jacobson

Team Members (if any):

Project Title: When You Wish Upon A Star

Abstract: For my project I tested seven different science classes of eighth graders and asked them what they wished for. I hypothesized that boys would be more likely to wish for material things and girls would be more likely to wish for more abstract things. I designed a survey asking age, gender, and what would you wish for? I then gave it to seven different science classes and came up with ten different categories to categorize the wishes under. I then categorized those categories under either abstract or material. I found that boys did wish for more material things and that girls were more abstract. The largest wish was money and cars for boys especially. Girls were school and theoretical. I found that there were some distinct differences between boys and girls, but also some very similar traits.

Category: Behavioral & Social Science

Student Name: Emma LeSueur

Team Members (if any): Lynzie Little

Project Title: Coloring Memories

Abstract: Our question is Does studying in color drastically more effective than black and white? Our hypothesis is Studying in color helps students remember things better than studying in black and white. Method: We acquired a list of names and divided the class as evenly as we could (an even number of girls and boys 10 color kids 11 black and white kids) We arranged to come into the class on Tuesdays and Thursdays for two weeks from around 9:45 to 10:00 am. On the first few days we came in the kids read over their study guides over and over individually with "offices" for as much time as we had. These "study sessions" were completely silent and we took turns writing down observations one thing we noticed was that the kids with colored study guides were more interested in studying than the kids with black and white study guides.

Category: Behavioral & Social Science

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Team Members (if any): Emma LeSueur

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Category: Behavioral & Social Science

Student Name: Joshua Ludlow

Team Members (if any): Marcquet Hill

Project Title: Free Throw Distractions

Abstract: My partner and I were testing the question how do various distractions affect free throw completion. Our hypothesis was that if we played a projection of objects moving in unison behind the backboard, then the shooters would complete less free throws. We tested our hypothesis by gathering together 12 basketball players, and having them shoot free throws in sets of ten under various conditions. Our distractions were music, fatigue, randomly moving objects, and objects moving in unison. Music was found to be the least effective and objects moving in unison the most effective.

Category: Behavioral & Social Science

Student Name: Janae Miller

Team Members (if any):

Project Title: Boys like ? Girls like ? Colors!

Abstract: My reserch question was whether or not boys and girls have different color preferences. My hypothesis was that girls would prefer warm(yellow, red, and orange) colors and boys would prefer cool(blue purple and green) colors. I got six colored pencils colored red, orange, yellow, green, blue, and purple. I then gathered 52 children within the first, second and third grades. I laid the six pencils out in a random order and had one child come out at a time. I would use the same language with each child, I invited them to pick any colored pencil. After they chose their pencil I wrapped it in black paper so it would not influence other children. The results partially supported my hypothesis.(boys were 71% cool and 29% warm and girls were 50% cool and 50% warm)

Category: Behavioral & Social Science

Student Name: Alexa Powell

Team Members (if any):

Project Title: Olfactory""

Abstract: Here are the questions I had as I started; does scent affect the mice's time at all, does it make them slower or faster, which scent/no scent makes them the slowest/fastest? My hypotheses for this project are, I think that scent will affect the mice's time, I think it'll make them slower, I think that the Melaleuca I used will make them the slowest, and they will be the fastest with No scent. The reason it will make the mice slower is that when you smell something, you get distracted, and try to find the source of the smell; this is what I think the mice will do. Melaleuca, I thought, will make them the slowest because I know, from personal experience, that it's very strong, so it will distract them more. The mice will be the fastest with No scent because there's no scent to distract them. (5 mice were used.) After I built the maze, I ran all of the mice three times through the maze, with No scent. I put cheese at one corner of the maze, and started the mice at the other. As soon as they moved forward, their time was started; and when they reached the cheese, their time was stopped and recorded. Afterward, I found the average of the times, per mouse. Then I used the same procedures for the rest; Peppermint, Tabasco, Cayenne, and Melaleuca. My conclusion is that they did fastest with no scent, and slowest with peppermint, not Melaleuca.

Category: Behavioral & Social Science

Student Name: Taylor Ramsay

Team Members (if any):

Project Title: Who's Watching?

Abstract: Question- Does the abuse of handicap parking privileges decrease if drivers are aware that they are being monitored? Hypothesis- If people know they are being monitored, they won't abuse the handicap parking space because they may be fined. Methods- I chose the Walmart parking lot in American Fork because it is frequently used and has a lot of clearly signed handicap-accessible parking spaces. I then made a table with three categories for the drivers that would park there; a. No handicap placard or plate. b. Has handicap placard or plate, no visible handicap. c. Has handicap placard or plate, visible handicap/ disability. I started by gathering a baseline sample by observing normal usage of the handicapped spaces. A couple weeks later I went back and posted notes on the handicap parking signs that read "This area is monitored." I observed whether or not the drivers would abuse the handicapped parking spaces if they knew they were being monitored. Results- The amount of people parking in handicap spaces with no placard or plate decreased 66% when they knew they were being observed. Those who had a placard or plate

Category: Behavioral & Social Science

Student Name: Ashley Tucker

Team Members (if any):

Project Title: Flexibility-Are kids with Down Syndrome more flexible then others

Abstract: I chose my project because I have three siblings with Down Syndrome and I've always grown up with them being really flexible. When my teacher said that there was going to be a science fair I thought it would be fun to do something on Down Syndrome, so I chose to do it on their flexibility. My question is Are kids with Down syndrome more flexible then kids without. My hypothesis was that kids with Down Syndrome were going to be more flexible then kids without. I then tested four kids with Down Syndrome and for kids without. Two of each group were and weren't in dance. I tested them and if they could do it they would get the point for it and if they couldn't they didn't get the point. Then I took they're totals and calculated a percent and kids with Down Syndrome didn't go under 90% and kids without didn't go above 50%. So my results were that kids with Down Syndrome were more flexible then kids without Down Syndrome.