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Resources for Teaching Research and Statistics in Psychology

Title of Resource Activity: The Problem of Vague Statements (Desserts & Horoscopes)

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Brief Description: This contains two difference activities that help show students the problem with vague statements. The first makes statements about students' personality based on their dessert selection. The second activity uses horoscopes.

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Instructors:

Activity 1 (Desserts)

Present the class with the cover story and dessert options. After they have had enough time to consider their choice, reveal the personality descriptions. Ask students if the description is mostly accurate or inaccurate. Next, ask them if any other desserts would have been accurate. Discuss reasons why this may be the case. Ask students if this makes it hard to know if the prediction was “right”? This is a good time to introduce the problem of vague statements, the Barnum effect, and the need for making testable/specific statements. The last dessert choice (Pie) can be shown to point out that in the context of these personality descriptions, the general statements work and seem believable because they are positive. If the feedback were negative it becomes less credible.

Activity 2 (Horoscopes)

One the first day of the semester, obtain a set of horoscopes, including a pet horoscope (all easy to find through a quick Google search). Set them up so that students can rank the most accurate (example shown below). After students rank their choices, ask them a series of questions (also shown below). This is a good time to introduce the problem of vague statements, the Barnum effect, and the need for making testable/specific statements.

Activity 1: Dessert Activity

If you could only pick one dessert to have for the rest of your life, which one (and only one) would you pick? Based on your selection, personality psychologists can identify key characteristics about your personality. Here are your choices:

1. Strawberry Short Cake
2. Chocolate Chip Cookies
3. Brownies
4. Sorbet
5. Cheesecake
6. Pudding
7. Cake
8. Ice Cream

Make your selection carefully, and be sure to select only one dessert.

STRAWBERRY SHORTCAKE -- Romantic, warm, loving. You care about other people, can be counted on in a pinch and expect the same in return. Intuitively keen. You can be very emotional. You are a friend for life! But look out if someone screws you over. You can hold a grudge.

CHOCOLATE CHIP COOKIES -- Sexy; always ready to give and receive. Very creative, adventurous, ambitious, and passionate. You can appear to have a cold exterior but are warm on the inside. Not afraid to take chances. You will not settle for anything average in life. Love to laugh.

BROWNIES -- You like sports, whether it be baseball, football, basketball, or soccer. If you could, you would like to participate, but you enjoy watching sports. You don't like to give up the remote control. You tend to be self-centered and high maintenance.

SORBET -- Sweet, loving, cuddly. You love all warm and fuzzy items. A little nutty at times. Sometimes you need an ice cream cone at the end of the day. Others perceive you as being childlike and immature at times.

CHEESECAKE -- Smooth, sexy, & articulate with your hands, you are an excellent after-dinner speaker and a good teacher. But don't try to walk and chew gum at the same time. A bit of a diva at times, but you have many friends.

PUDDING -- You are adventurous, love new ideas, and are a champion of underdogs and a slayer of dragons. When tempers flare up you whip out your saber. You are always the oddball with a unique sense of humor and direction. You tend to be very loyal.

CAKE -- Fun-loving, sassy, humorous, not very grounded in life; very indecisive and lack motivation. Everyone enjoys being around you, but you are a practical joker. Others should be cautious in making you mad. However, you are a friend for life.

ICE CREAM -- You are a very fun loving person, who likes to laugh. You are fun to be with. People like to hang out with you. You are a very warm hearted person and a little quirky at times. You have many loyal friends.

PIE (Flavor Non-specified) -- *You are a terrible person. No one likes you. Sure, a few people act as if they like you, but they only hang out with you to make fun of you. Turns out, you aren't that attractive either. Stay in college as long as you can because no one would hire you anyway. Your magic number is... let's be honest....you have no magic in your life. That makes your magic number zero. Loser.*

Activity 2: Horoscopes

RECALL THE EVENTS OF THE FIRST DAY OF THE SEMESTER AS VIVIDLY AS YOU CAN. BASED ON YOUR ACTUAL EXPERIENCES FROM THAT DAY, PLEASE RANK THE FOLLOWING STATEMENTS FROM 1 TO 13.

1 INDICATES MOST APPLICABLE TO YOUR DAY AND 13 INDICATES LEAST APPLICABLE TO YOUR DAY.

- 1) ____ Defending yourself is a waste of energy, especially when you know you're not the problem. Keep your focus on the task at hand, and soon your colleagues will come to the same realization.
- 2) ____ A few bumps in the road won't throw your day off track permanently as long as you're able to stay flexible. In fact, if you view unexpected events as opportunities for learning, your day might be more enriching than you thought!
- 3) ____ You're aces at getting things started, but making sure that those projects get finished up is not exactly your forte right now. Partner up with someone who excels at tying up loose ends, and your day will go by with the greatest of ease.
- 4) ____ Your social life is just delicious if you take the time to reconnect with anyone you may have lost touch with in the whirl of the last few days. Make sure you catch up on everything in their lives, and fill them in on yours, too.
- 5) ____ Set the wheels in motion and things will go just swimmingly. It's a great day to get things started, but don't expect to see instant results. After all, the best things in life usually take a little while to get going. Practice patience.
- 6) ____ You're the one with ultimate say over who is and who isn't in your personal life. Make sure you figure out which relationships can be saved, and which need to go. It won't be easy, but you'll have the people who you really want there.
- 7) ____ This is a busy time for you. People want to play rough and you're in demand with your older friends as well. With the momentum of life gathering pace, there are plenty of things that demand your attention. Fortunately the chaotic circumstances don't frazzle you.
- 8) ____ They may not be what you expected, but your companion du jour opens the possibilities for what you thought of as enjoyable experiences. Who knew mowing the lawn and playing in the sprinkler could be such fun?
- 9) ____ You and a coworker form an extraordinary working team, so you'll be extra glad when you're both assigned to a special project. With the way that you two communicate, you'll be flying your way through this in no time.
- 10) ____ Letting an age, cultural or social difference stand in the way between you and a potential new pal is just silly. You know that the connection you two have goes way beyond mere surfaces. Ignore what others say.
- 11) ____ Inspiration in the form of a new friend pops up when you least expect it. Follow your instincts regarding your new pal and spend as much time together as you can. You two are going to have so much fun!
- 12) ____ Giving in doesn't mean you've given up. Actually, it means that you're mature enough to see a solution that works for both of you -- and you're not so filled with pride that you insist on having your own way. Good for you!
- 13) ____ Workwise, crafty coworkers and other ornery types who hedge and duck call are dying to meet with you and talk about your brilliant ideas. Meanwhile, love is playful and undemanding -- exactly the way you like it!

ONCE ALL RATINGS ARE COMPLETE, ASK STUDENTS A FEW ADDITIONAL QUESTIONS.

1) How confident are you that you ranked your actual horoscope as #1, top 5, or top 10?

2) Guess which number was actually a slightly modified pet horoscope.

3) Actual Horoscopes

1. Capricorn
2. Cancer
3. Gemini
4. Leo
5. Aries
6. Pisces
7. Pet
8. Virgo
9. Taurus
10. Aquarius
11. Sagittarius
12. Scorpio
13. Libra

4) What did you rank your actual sign as? Top 1, 5, 10? Was the horoscope accurate?

5) What did you rank the pet horoscope as? How many of you ranked the pet horoscope higher than your own? Why did I include a pet horoscope? What does this show?

6) How does this procedure (retrospectively assessing the accuracy of a horoscope) differ from how people typically use horoscopes? What is the key difference?