

CRITICAL REVIEW ESSAY

SENIOR EXIT PROJECT COSMETOLOGY

Objective: To write a critical review essay and Reference List (using standard APA style) from multiple sources.

Assignment: Read the three articles: “Warning: what your shampoo’s label won’t tell you...” “Poisonous chemicals in skin and hair products,” and “Study links some hair dyes to kind of cancer.”

After reading the articles, write a critical review essay that includes the following:

- A summary of the three articles and how they are related, what you have learned that you will apply in the practice of your salon,
- Your opinion about the use of dyes and chemicals in hair services,
- How you will use the information in the articles in your work with clients.
- Research one or two of the products that you plan to use and see if any of the ingredients discussed in the articles are present in the products you have chosen for your salon.

For Extra Credit: You may find and read another article that is related (cancer from salon products, ingredients in salon products, or toxic products used in salons) to obtain extra credit. The extra credit possible is up to 10 points.

Suggested Outline: Your essay should cover the following sections.

Part I: Write an introduction discussing what the essay will cover, the title of the articles read, and the purpose of the essay.

Part II. Summarize the three articles. Show that you know the content and what is important. You need to write about at least 5 toxic ingredients, what they do and where they are usually found. Show the relationship between the articles, not just summarizing the articles separately. Write your summary in your own words, not just cutting and pasting what is said in the articles.

Part III: How will you apply this information to the operation of your salon? Have your group discuss any ideas about what you would do with the information, then write about what you plan to do. What is your opinion about the use of chemicals in the salon? Back up your opinion with the information in the articles. How will this information affect your work with clients?

Part IV: Discuss two products you have chosen for your salon and the ingredients in those specific products that match what is mentioned in the articles. What risks are involved with the use of these products?

Part V: Write a conclusion that summarizes the main points of your essay. What have you learned and how will this be applied in your work as a cosmetologist?

Part VI: Write a Reference List that lists the authors, titles, and sources of the articles used in the essay. Please use APA style.

Criteria for Grade

You will be graded on the following criteria:

- Completeness of assignment
- Spelling and grammar
- Use of own words rather than just cutting and pasting
- Showing accurate understanding of material
- Correct APA style of Reference List
- Applies knowledge in article to cosmetology



Methods of Collecting Data
Science Experiment #2
Designing Your Own Experiment



There are many different ways to collect data. What methods you use depends upon the question you are asking and the subject area.

Here are some terms and descriptions.

Laboratory experiments: Here you gather data in a laboratory setting. The experiment needs to be designed in a way that someone else could repeat it. Results must be recorded so that others can interpret them. Usually a variable under study that you have control over is the independent variable. The dependent variable is the thing you are measuring in the experiment. The experimental group is compared to the control group.

You could do an experiment to compare the effect of two styling gels on the hair. The independent variable is the styling gels. The dependent variable would be whatever you use to measure the effects of the gel. You could measure several different things. What it does to the quality of the hair (for example, tensile strength), length of time the curl stays in the hair, or you could use two dependent variables and measure both.

Interviews: When doing an interview, a researcher asks questions personally to the respondents. Structured interviews ask clearly defined questions. Unstructured interviews allow the response of the respondent to lead to new questions.

You could interview shop owners who have a full service salon to find out how they spend their day - how much on cuts, administrative duties, color, blow dry, shampoos, etc. You could do a structured interview where you have the questions already planned, or an unstructured interview where you use some of the person's responses to lead to new questions. You would then need to analyze

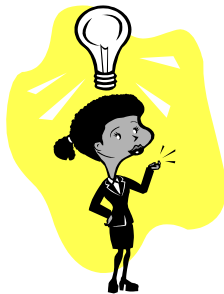
the responses in a way that makes sense and summarizes what you have found out by interviewing salon owners.

Surveys and Questionnaires: A questionnaire is a series of written questions supplied to the subject asking for their responses. The way you will be analyzing the data and the kind of study you are doing influences the type of questions asked. Closed questions provide the responses for the respondent to choose. This is then more easily coded. Open questions provide space for the respondent to write their own answers. This gives more information, but is more difficult to code. When looking to find out general information, open questions are more often used. When you give a short questionnaire to a large group of people to get attitudes and opinions this is called a survey.

You could use a questionnaire to have people rate a certain product. The questionnaire could combine closed and open questions. Respondents could rate the product on a scale 1-10 (closed questions). You could also ask them to describe what it was they liked and didn't like about the product (open questions).

Field Experiments: In this type of research you are doing an investigation with controls, but it is done in the non-laboratory setting.

You might compare two products by having people choose which one they preferred according to specific criteria. You would have a number of subjects use hair spray for one week, at home, evaluating certain qualities, or giving a rating, and then have them use another type of hair spray for the following week after shampooing their hair.



Demographic Research: If you choose to do a demographic study, it would need to be one where you investigate the specific location of the salon you have chosen and investigate specific items of opening a salon at that location (by town). You would need to include the following items:

- Cost of salon services in that town
- Rent, cost per square foot
- Are you responsible for water costs?
- Are you responsible for taxes?
- Population, demographics of the population (include average income, cultural heritage, size of population)
- Insurance costs for errors and omissions insurance
- Insurance costs for liability insurance
- Number of clientele per week on average at the salons in that town
- Parking
- Any local ordinance that would affect your salon in that town

Any Data collected for your study can be either qualitative (uses words and descriptions) or quantitative (uses numbers).

Traps to avoid when asking questions or writing a questionnaire:

1. The double question: Questions like “Do you like hair spray or Clairol conditioner?” The wording makes it difficult to answer accurately.
2. The wrong choice question: “Is your hair red or blonde?” needs to have another alternative because there are other hair colors.
3. The fuzzy word question: “Should middle aged woman wear their hair up?” Middle aged is vague and means different things to different people, and hair up could mean many different things also. Watch out for words such as “frequently,”

“occasionally,” “often;” try to use words that are not confusing or can have different meanings to different people.

4. Questions that are too broad: “What is the hair like?” is so broad, that you might get very different aspects of the hair. If you know specifically what aspect of the hair you are looking for, ask that instead.
5. The kitchen sink question: “Please list all the things that have been a problem for you as a salon owner, what you have done about them and what you would recommend to new salon owners.” To save confusion in replying, recording and coding the answers, ask each part of the question separately.
6. Leading questions: “Why are you happy as a cosmetologist?” gives the respondent little opening to say he/she is unhappy as a cosmetologist.
7. Hearsay questions: Do not ask someone else to tell you the opinions of another.
8. Questions to which it will be difficult to understand the meaning: Be sure to be careful not to interpret what someone’s answers mean if you don’t have enough information to make the interpretation.



The above are suggestions; if you have an idea that does not fit into the above categories, check with Mrs. Ashley. If you are using questioning in your study, have the questions first approved.

Experiment on Sanitation and the Growth of Bacteria and Fungus

Purpose of the Experiment: The purpose is to find out what methods of sanitation and disinfecting work best in the salon to limit the growth of bacteria and fungus.

Materials: Petri dish with nutrient agar, eye dropper, Quaternary Ammonium Compound, 70% alcohol solution, Hydrogen peroxide, paper disks, q-tips, tweezers.

Procedure:

1. Pair up with two other students for this experiment.
2. Each group of students should get one petri dish an eyedropper, q-tips and a paper disk.
3. Your group will be assigned to use one of the disinfectants.
4. Take the q-tip and swipe under fingernail, on the surface of table, along a comb that has not been in Quat solution, or other kind of surface that would be found in any salon.
5. Rub the q-tip that has been exposed over the surface of the petri dish. Close the lid to the petri dish so that no other contaminants are on the agar surface.
6. Take the disinfectant you have been assigned and prepare a paper disk soaked in the solution.
7. Place the soaked disk in the center of the petri dish using tweezers and then close the lid.
8. Place the petri dish in a warm dark location as instructed by you teacher.
9. Check the petri dish each day and record what you observe on your laboratory data sheet.
10. When all students have recorded the data, each group will share the results with the rest of the class. Record the results from each group on your laboratory data sheet.
11. Read the paper "Sanitation and safety practices for make up artists."
12. Complete the Laboratory Data Sheet on Sanitation and the Growth of Bacteria and Fungus. Turn in the sheet for grading and then when it is returned to you place in you portfolio.