

Senior Research Presentation Rubric

Student Names: _____

Title: _____

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INTRODUCTION:

Introduces presenters. Introduces topic and forecasts major ideas. Piques the interest and curiosity of the audience. **Visual and dynamic.** Tells why it is important to research this topic. Includes any information that will make project richer or more relevant (history, background, current events, etc.).

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SCIENCE & VISUALS:

Discusses background information that will help audience understand presentation better. Scientific concepts and terminology/jargon not common knowledge explained and defined (in context, not as a list of definitions). **Visually animate scientific concepts.** Visual aids used to make a point (not as a showpiece). Props must add value to presentation and highlight what is being discussed.

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PROCEDURE:

Shows procedure visually while explained in detail. Shows major materials used, and explains how equipment not commonly used works. **Make this visual with pictures and/or video.** Use props to enhance presentation. Do not list obvious materials (pencil, paper, calculator).

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STATISTICAL ANALYSIS & RESULTS:

Shows data visually in graphs. No raw data tables, can include a table of summary statistics (means, standard deviations, percentage changes, values that are important to results). Thoroughly interprets data and graphs and makes comparisons of populations where appropriate. If doing a statistical test, explains reasons for the statistical method used. Show that you have met the condition/assumptions. State and explain null and alternative hypothesis, P-value, and what it implies. Identify variables including μ . Do not show the mathematics of the statistics. If doing a DOE, never reference your variables just as high and low or plus and minus.

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RESULTS

Tells audience what findings mean supported with statistical evidence. **Explains the science behind results.** Relates results to existing literature, and explains whether it agrees or disagrees with current work in the field. Discusses any weakness in the experimental design, and sources of error. Makes no apologies or excuses, and takes responsibility for results, positive or negative. Discusses application of concepts (this may already be in intro/background). Discusses changes or improvements that could be made. Mentions further research that can be conducted in topic area.

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TAKEAWAY

States the main points you want your audience to walk away with. What is the most important thing about your research? What did you learn? Emphasizes the results to your problem and its impact on society or scientific community.. Leaves audience impressed by research. The presenters' message is clear, concise, accurate, appropriate, on-topic, and jargon free. This is not a grocery list of each section.

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DELIVERY

Eye contact with the entire audience (look and lock). Own this! Speak with confidence and enthusiasm! Talk only when looking at audience. No note cards or screen reading. Posture, stance, and voice projection is appropriate. No "umms" or "you knows" or other unnecessary repetitions. No gum. Professional dress or appropriate for presentation. Shows clear evidence of practice, teamwork, and cooperation. Time (15-20 minutes before asking for questions). You must be ready at scheduled time. -1 pt for every 10 seconds over or under time range (10 seconds maximum deduction). Animations (arrows and circles) are used to point out objects on the screen and enhance presentation, incorporating hand gestures. Do not block presentation screen. Perfect command over technology.

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FORMATTING

Include a Works Cited slide in proper MLA format (no bullets), a Thank You for Watching / Questions slide, and an Acknowledgements slide. Always thank people who have helped you and have come to watch your presentation. Page numbers bottom right corner. No more than 6 lines of text per slide (including title slide) with appropriate font size. Slide design shows consistency in font size and style, and image size and placement. Consistent and correct capitalization, punctuation, and spelling. Photos, images, and text are consistent in size and placement. URLs are evenly, center-spaced in smaller, lighter text under images (this should not be distracting).

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