BCB744 Biostatistics Self-Assessment

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Here is a self-assessment worksheet for the *Biostatistics* portion of the BCB744 course, based on the provided sources. This worksheet is designed to help you gauge your understanding of the material covered in each lecture and provides resources for further practice.

0.1 General Instructions

- Complete the practice exercises to test your skills.
- Submit your answers to each task's questions no later than 8:30 on the day after the corresponding lectures (e.g. Monday's lecture material is covered by Task A, and must be submitted on Tuesday morning no later than 8:30).
- You MUST submit your answers to the questions for each task.

- Review the relevant course material if you find you are struggling with a section. Ask for help before it is too late! It is best to admit in class if you are falling behind so that others might benefit as well. Chances are, you're not alone.

0.2 Submission Requirements

- **Deadline:** Submit your work by *8:30 AM on the day after the tasks were issued*.
- **Submission Format:** Submit on iKamva as a HTML or a PDF, as instructed in the lectures.
- **Email Subject Line:** In case you *have* to email your work (e.g. no iKamva access), use the following subject line:
  - 📌 BCB744 Task [The Number]: [Your Surname]
- **File Naming Convention:**
  - 📄 BCB744_Task_[The Number]_[Your_Surname].pdf (or whatever the instructions call for re the file format), where [The Number is the task number, e.g. BCB744_Task_E_Smit.html]

Failure to adhere to these requirements may result in a grade penalty. Ensure that your slides are clear, well-structured, and visually professional.

0.3 Assessment Instructions

- Immediately after we have gone over the task answers in the class (e.g. on Tuesday morning for Task E):
  i) Add the marks you gave yourself for each question (according to the model answers we discussed) to the MS Excel spreadsheed, which you can download from the top of each Task's question page (e.g. here).
  ii) To calculate your Final Score, rate your performance according to the rubric and enter those marks next to the "Content" and "Code Formatting & Presentation" entries on the spreadsheet. Once those marks have been supplied, the final mark will automagically be calculated.
- Rename the Excel file correctly (Name and Surname, and take note of the underscores):
  - e.g. 📄 BCB744_Task_[The Number]_[Your_Name].xlsx
- Submit it on iKamva where it will be kept on record.
- Each day I'll randomly select five of the submitted tasks to check how honest you were in your self-assessment. If you are found to be dishonest, you will be penalised by losing marks from the presentations. If you are honest, you will be rewarded with bonus marks.

1 Rubric (All Tasks)

2 Task E Questions

2.1 2. Exploring with Summaries and Descriptions

2.2 3. Exploring with Figures

3 Task F Questions

3.1 7. Inferences About One or Two Populations

4 Task G Questions

4.1 8. Analysis of Variance (ANOVA)

5 Task H Questions

5.1 9. Simple Linear Regressions

5.2 10. Correlations

6 How to Use This Worksheet

- **Be Honest:** Accurately assess your understanding of each topic to identify areas you need to review.
- **Practice Regularly:** Consistent practice is key to mastering R.
- **Seek Help:** Don't hesitate to ask questions on the GitHub Issues page for help.
- **Collaborate:** Work with your peers and discuss the concepts [8, 19].
- **Use the Resources:** Make full use of the provided links and materials for further study.
- **Review:** If you are struggling, review the course material provided by the instructor.

Bibliography