**FP Math Mini-Project: Project Week Survey**

Each student will **design a survey** to learn more about student experiences during Project Week. The population is all DP1 and FP students attending 2018 Project Week. The audience for the resulting report is Tingting and other school leaders. The design will include:

* A random sampling plan
* A questionnaire addressing multiple aspects of Project Week.
* A plan for collecting survey answers, and a plan for ensuring that selected students complete the survey.
* A plan specifying EXACTLY how the answers will be analyzed.
* A list of what will be included in the report to Tingting.
* Justifications for each decision made throughout the design process.
* Discussion of the limitations of the survey design.

Please note: **you will NOT be carrying out this survey yourself**. Instead, the Math Department and Zhixing Office will select the best design or several designs. We will then use these as the official feedback process for Project Week. So, please do a good job and see your work directly used to make the school better!

You will hand in your survey design as a PDF or DOCX file by **YYYY-MM-DD at 16:00**. You should expect to spend around 2-3 hours working on this project outside of class.

You will be assessed on the following criteria, for a total of 10 marks:

**Communication** [2 marks]

* The design is *coherent* (each part of the paper makes sense relative to the other parts) and *well-organized* (the paper has a structure--intro, body, conclusion, where each part is clearly identified, and the parts are presented in an order that makes sense).
* The design is *concise* (not longer than necessary) and *complete* (not missing any parts that should be there).

**Mathematical Presentation** [1 mark]

* Statistics vocabulary is used correctly and consistently.

**Personal Engagement** [1 mark]

* The design choices authentically reflect the experiences and interests of the author and other project-week students. (include all kinds of things)

**Reflection** [2 marks]

* Reasons and justifications are given for each step in the design process.
* Limitations are recognized, or potential directions for improvement are discussed.

**Use of Mathematics** [4 marks]

* Sampling process is completely described, so that it could be reproduced.
* Sampling process uses random chance and leads to an appropriately representative sample.
* Data collection process is completely described, and is free of obvious sources of bias.
* Analysis steps are completely described and mathematically appropriate to the data and the purpose of the analysis.