



The Delphi Method

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This is a partial preview. For full access to these teaching materials, please register and download.

Rationale:

Research in small group dynamics finds consistently that generally knowledgeable groups tend to make better decisions than even the smartest or best informed individual in the group. That is true, however, if the group is not dominated by one or more individuals. In that case, those individuals are making the decision as if the rest of the group did not exist. How to prevent one or more individuals from dominating the discussion in order get participation from others? That is what the Delphi technique is for. The Delphi technique can be used to develop judgments or estimates in a group, particularly about the future, that rely on the inputs from most of the members of the group.

Learning objectives:

- At the end of this module, students will be able to describe the need for the Delphi Method in group decision making, particularly in estimating dates or quantities for the future.
- At the end of this module, students will be able to describe how the Delphi Method increases participation by everyone in a group.
- At the end of this module, students will be able to recommend and apply the Delphi Method in other settings outside of this class.

Type (individual or group): this lesson involves group work in class, and individual work outside of class.

Time:

- This lesson is targeted at one week of a semester-long, 3-credit, college course.
- Contact time: nominally 150 contact minutes (e.g. three 50-minute class sessions or two 75-minute class sessions). This is typically a week for a 3-credit semester course. Hints for shrinking or expanding the time are given in the lesson plan below.

Background/Preparation: Some materials listed here are suitable for student use, others for instructor use, and some are useful for both students and instructor.

Readings

- [Ted Gordon, "The Delphi Method," Futures Methodology 2.0, Millennium Project, 2005. The definitive description of the Delphi Method by one its inventors.](#)
- Olaf Helmer, "Analysis of the Future: The Delphi Methods," RAND Corporation, March 1967, <http://www.rand.org/pubs/papers/P3558.html> (download free copy). The first paper published on the Delphi method by another of the inventors. (Note on Page 9 that consensus is not required for the Delphi to be valuable. Helmer says elsewhere that the process stops when the process achieves stability, not always consensus—i.e., when participants will probably not change their estimates in subsequent rounds. The case in which two or more estimates are stable provides excellent data for alternative scenarios based on the multiple estimates.)
- "Delphi Survey," FOR-LEARN, EC Joint Research Center, http://forlearn.jrc.ec.europa.eu/guide/2_scoping/meth_delphi.htm. A simple explanation of the process
- Health Care Evaluation, The Use of Delphi Methods, HealthKnowledge, <http://www.healthknowledge.org.uk/public-health-textbook/research-methods/1c-health-care-evaluation-health-care-assessment/use-delphi-methods>. An example.
- [TechCast, William Halal, George Washington University. An on-going technology forecasting project that uses the Delphi. \(Read Overview, Methodology, and Results\)](#)

Videos – a simple animated description of the Delphi method

- Delphi Method 1 - <https://www.youtube.com/watch?v=FFfKOSTftcs>
- Delphi Method 2 - Limitations, Examples, More Info, <https://www.youtube.com/watch?v=uV9xFqblEy4>

NOTE: Web searches for Delphi material will reveal that the term "Delphi method" is associated with a misinterpretation of the Delphi as a way to manipulate citizens in a public meeting. the instructor may wish to mention this distinction or even discuss it with students to avoid confusion.

Additional resources

1. H. A. Linstone and M. Turoff, eds., The Delphi Method: Techniques and Applications, 2002. <http://is.njit.edu/pubs/delphibook>.
2. A document concerning the first use of the Delphi method is available at www.rand.org/pubs/papers/P2982.html. The document contains a long-range forecast for science and technology made in 1964. Most of forecasts were remarkably accurate for 20 or 30 years.