## **Delphi Method Evaluation**

Forecasting is required in many situations. Stocking an inventory may require forecasts of demand months in advance. Telecommunication routing requires traffic forecasts a few minutes ahead. Whatever the circumstances or time horizons involved, forecasting is an important aid in effective and efficient planning. This textbook provides a comprehensive introduction to forecasting methods and presents enough information about each method for readers to use them sensibly.

Each year the Department of Defense (DoD) spends billions of dollars on information technology (IT) outsourcing. However, little formal or academic guidance has appeared that explains how, why, or even when this occurs. This study presents and evaluates several determinants that may impact a decision to outsource information technology systems in the Department of Defense. It begins with the development of a conceptual model, which was created using semi-structured interviews and an extensive literature search. This model was then matured into an analytic version by using the Delphi method, which is an accepted methodology to use when insufficient or no applicable data exists, the required data is too expensive to obtain and analyze, or the problem variables and their interaction are not clearly known. The results seem to suggest that while some determinants are more important than others, the decision to outsource IT in the DoD is a multifaceted one. This is consistent with similar research done in the private sector. The results also seem to suggest that in the area of IT outsourcing, the DoD seems to be experiencing much the same evolution the private sector did and that each organization has a slightly different focus and requirement set.

The Asia-Pacific program evaluation development and challenge project in 2006-2007 was a collaboration of researchers with varied cultural backgrounds and from two different countries. It focused on the Asia-Pacific region and utilized a Delphi technique involving experts from 11 countries/areas (Australia, China, Hong Kong, Indonesia, Japan, Macao, New Zealand, Singapore, South Korea, Taiwan, and Thailand). Readers will learn of the challenges encountered by the research team and problems in using the Delphi, online survey, purposive and snowball sampling, and working cross-culturally. A Methodological Evaluation of Delphi Forecast Procedures and Products in a Field Study Situation

Theory-Driven Evaluations

Experts' Selection for Neutrosophic Delphi Method. A Case Study of Hotel Activity Evaluation of Methodology in the University of Michigan's Sea Grant Delphi Inquiry Delphi Critique; Expert Opinion, Forecasting, and Group Process Group Decision Making and Effectiveness

A book in the Systems Evaluation, Prediction, and Decision-Making Series, Systems Evaluation: Methods, Models, and Applications covers the evolutionary course of systems evaluation methods, clearly and concisely. Outlining a wide range of methods and models, it begins by examining the method of qualitative assessment. Next, it describes the process and methods for building an index system of evaluation and considers the compared evaluation and the logical framework approach, analytic hierarchy process (AHP), and the data envelopment analysis (DEA) relative efficiency evaluation method. Unique in its emphasis on the practical applications of systems evaluation methods and models, the book introduces several new evaluation models of grey system, including general grey incidence model, grey incidence models based on similarity and closeness, grey cluster evaluation based on triangular whitenization functions, and multi-attribute grey target decision model. Explaining intricate concepts in language that is easy to understand it provides step-by-step explanations of the various methods and models. The text illustrates the practical application, analysis, and computation of systems evaluation methods and models with an abundance of practical examples and empirical studies. The case studies examine post evaluation of road-bridge construction projects, the efficiency evaluation of the science and technology activities, the evaluation of energy-saving projects in China, and the evaluation and selection of international cooperation projects. This book focuses on economic evaluation data of the urban land and sets the goal in realising urban land economic evaluation based on the models presented. Making full use of cloud model, Delphi method, correlation analysis and the Voronoi graph, it presents systematic research on urban land economic evaluations and explores a series of theories, methods and practical uses. This book discusses the theory and technical frame of urban land economic evaluation, and also points out the

Focusing on uses of the Delphi method in social planning, this book discusses practical issues which need to be considered for the technique to be applied successfully; illustrates use of the technique through case studies; and assesses the potential of the method for social policy and planning.

An Evaluation Using the Delphi Technique

Identification and evaluation of the uses of the Delphi method as a forecasting technique in the business environment: technical report Evaluation of a Selected List of Purposes for Physical Education Using a Modified Delphi Technique

An Evaluation of Information Technology (IT) Outsourcing Determinants Within the Department of Defense (DoD)

Conducting Educational Needs Assessments

## **Systems Evaluation**

This paper examines the Delphi technique critically to determine whether it succeeds in alleviating the 'process loss' typical of interacting groups. After briefly reviewing the technique, we go on to consider problems with Delphi from two perspectives. First, we examine methodological and technical difficulties, and the problems these have brought about in experimental applications. We suggest that important differences exist between the typical laboratory Delphi and the original concept of Delphi. These differences, reflecting a lack of control of important group characteristics/factors (such as the relative level of panellist expertise), make comparisons between Delphi studies unrealistic, as are generalizations from laboratory studies to the ideal of Delphi. This conclusion diminishes the power of those former Delphi critiques which have largely dismissed the procedure because of the variability of laboratory study results (e.g. Sackman (45)). Second, having noted the limited usefulness of the majority of studies for answering questions on the effectiveness of Delphi, we go on to look at the technique from a theoretical/mechanical perspective. That is, by drawing upon ideas/findings from other areas of research (e.g. Hogarth (27)), we attempt to discern whether the structure of the Delphi procedure itself might reasonably be expected to function as intended. We conclude that inadequacies in the nature of feedback typically supplied in applications of Delphi tend to ensure that any small gains in the resolution of 'process loss' are offset by the removal of any opportunity for group 'process gain'. Some solutions to this dilemma are advocated, which are based on an analysis of the process of judgment change within groups and a consideration of factors which increase the validity of statistical/nominal groups over their constituent individual components.

Endodontics is the science and art that treats the tooth and periapical tissue from a morphological, structural, physiological and pathological point of view, combining knowledge to comprehensively treat the tooth and surrounding tissues. Because of endodontics comprises the root canal treatment, sufficient knowledge of the internal root anatomy is required. However, this knowledge is not always taught with sufficient quality with respect to some teeth such as the upper first premolars with Vertucci type III classification, due to the complexity involved in this content. At the Faculty of Medical Sciences of Universidad Regional Aut ó noma de los Andes (UNIANDES) in Ecuador, it is proposed to hold a group of talks on these issues. This research aims to validate educational talks on the treatment of Vertucci type III first premolars. For this purpose, the Neutrosophic Delphi method is applied, which is an extension of Delphi method to the neutrosophic framework. Delphi method allows a group of experts to reach a consensus on a topic of research, in this case on the proposed talks. Neutrosophy is included to incorporate the indeterminacy that exists in experts ' evaluation, as well as the use of linguistic terms to perform the evaluations, which is more appropriate when it comes from subjective evaluations carried out by humans. Physical activity is integrated in preventive health programs due to its health-related benefits. Increasing physical activity levels in children and adolescents is a global objective that focuses in cognitive, affective, and behavioral factors. Physical literacy and models of motor development suggest a positive association between movement competence and physical activity. Poor movement competence is associated with a sedentary lifestyle and is a risk factor for musculoskeletal injury. Promoting physical activity and sports participation is crucial; however, participating in physical activity and sports has been related to increased risk of musculoskeletal injury. Assessments of physical literacy and movement competence are mainly focused on motor development factors, but injury prevention techniques are not considered in these assessments. Our objective was to establish the face and content validity of four movement skills, each with four evaluation criteria, to create a movement skills assessment tool for 8-12-year-old children to fill the gap between movement competence and injury prevention assessments. We used a modified Delphi method to survey an international expert panel of clinicians, researchers, and practitioners (n=22). Three rounds of surveys were used to achieve consensus on the validity of four movement skills and evaluation criteria. Consensus was achieved when 75% or more of the experts scored "Agree" or "Strongly Agree" using a 5-point Likert scale. In the first and second Delphi-rounds, the expert panel achieved consensus on the validity of eight movement skills and 53 evaluation criteria. In the third round, the experts ranked the movement skills and evaluation criteria to identify the top four movement skills and top four evaluation criteria per movement skill to create the movement skills assessment tool. This study provided preliminary validity evidence for the movement skills assessment tool. Future research should evaluate other psychometric properties and assess injury outcomes of a movement-oriented intervention. The movement skills assessment tool will be used to screen movement competence and identify movement patterns that present risk factors for musculoskeletal injury in different settings with minimal equipment.

The Theory and Practice of Need Assessment

Gazing Into the Oracle

Techniques and Applications. Reading

An Instrument for Curriculum Evaluation and Planning

**IEEE Standards** 

Human Resource Development

This investigation aims to model experts 'selection for neutrosophic Delphi method. The phase of selecting experts is essential to obtain adequate results in Delphi method, thus this phase deserves a major attention. The proposed method considers the complexity of the subject, according to experts' criteria to fix the number of experts necessary to apply the neutrosophic Delphi method. Single-valued triangular neutrosophic numbers are used to measure experts' self-evaluations and the weights of expertise criteria. Neutrosophy allows us to include indeterminacy, which is typical in any decision-making problem, as well as the calculation based on linguistic terms. Hotel activity serves as a case study for illustrating the applicability of the method in a real life situation.

Philosophy; General applications; Evaluation; Cross-impact analysis; Specialized techniques; Computers and the future of delphi; Eight basic pitfalls: a checklist; Delphi bibliography.

Any course evaluator who has tried to evaluate a course of study knows just how difficult it is to get the right sort of information; the goals of a course are often unclear, a programme often has no other programme to compare it with, and they may be asked to judge a curriculum without knowing if it was actually followed. They also face difficulties in persuading teachers to use assessments to improve their teaching. The contributors use a series of case studies to show how improvements in evaluation methods can help to shape better education policy.

Techniques for Utilizing Informed Judgments of a Multidisciplinary Team of Researchers

Delphi Validation of Educational Talks on the Treatment of First Premolars Vertucci Type III

Forecasting: principles and practice

Developing Criteria for the Evaluation of Performance in Family Medicine Using the Delphi Technique

Utilization of the Delphi Technique in Constructing a Clinical Evaluation Rating Scale

Delphi Methods In The Social And Health Sciences

The Delphi Technique in Nursing and Health Research is a practical guide to using the Delphi methodology for students and researchers in nursing and health. It adopts a logical step-by-step approach, introducing the researcher to the Delphi, outlining its development, analysing key characteristics and parameters for its successful use and exploring its applications in nursing and health. The book addresses issues of methodology, design, framing the research question, sampling, instrumentation, methodological rigour, reliability and validity, and methods of data analysis. The Delphi Technique in Nursing and

Health Research enables the reader to be aware of the limitations of the technique and possible solutions, to design a Delphi questionnaire for each of the different rounds of a study, to consider different approaches to the technique in relation to a study, to analyse the data from each round of a Delphi study, and to understand the importance of feedback between rounds. Key Features A practical guide to facilitate use of the Delphi technique Provides the reader with the necessary information to participate in and conduct Delphi studies Examines different types of Delphi, including the e-Delphi, and modifications made to the technique Includes examples of real empirical investigations, brief case scenarios and key learning points for each chapter Explores the role of the Delphi researcher Explores ethical issues and issues of anonymity, use of experts and controlled feedback

Delphi methods enable the systematic collection of expert judgments. They have proven to be particularly useful when a certain level of expertise and judgment is required to answer a research question. There are different variants of Delphi methods, such as the group Delphi or the real-time Delphi. The book presents current methodological developments and examples of application in the social and health sciences. The contents? Delphi methods: Concepts and variants - Epistemological discussion - Practical challenges - Delphi in the social and health sciences - Real-time Delphi - Delphi markets.? Application examples for Delphi methods - Qualification requirements, recommendations for action for further development and strategy development in the health care industry - Personnel retention and recruitment in occupational nursing - Group Delphi for obesity prevention- Safety and health competence at work - Delphi methods in health promotion The editorsProf. Dr. Marlen Niederberger is professor for research methods in health promotion and prevention at the PH Schwäbisch Gmünd.Prof. Dr. Ortwin Renn is Scientific Director at the Institute for Advanced Sustainability Studies, Potsdam (IASS). This book is a translation of the original German 1st edition Delphi-Verfahren in den Sozial- und Gesundheitswissenschaften by Marlen Niederberger and Ortwin Renn, published by Springer Fachmedien Wiesbaden GmbH, part of Springer Nature in 2019. The translation was done with the help of artificial intelligence (machine translation by the service DeepL.com). A subsequent human revision was done primarily in terms of content, so that the book will read stylistically differently from a conventional translation. Springer Nature works continuously to further the development of tools for the production of books and on the related technologies to support the authors.

The scientific research proposal is part of the task to be carried out in academic and research institutions around the world. This is a complex decision-making problem, because decision-makers must determine the projects that are appropriate to the subjects addressed by the institution, those projects must be achievable within a reasonable deadline, they must have the financial means and the budget necessary to be carried out, the staff must be sufficiently qualified and an optimum number of personnel must be available to succeed the tasks and not interfere with other research projects.

Sea Grant Delphi Exercises

Improving Quality

The Development Effects of Tourism

Impact on Policy

A Delphi Study of Professional Perspectives

The Delphi Method

What goals should be addressed by educational programs? What priorities should be assigned to the different goals? What funds should be allocated to each goal? How can quality services be maintained with declining school enrollments and shrinking revenues? What programs could be cut if necessary? The ebb and flow of the student population, the changing needs of our society and the fluctuation of resources constantly impinge on the education system. Educators must deal with students, communities, and social institutions that are dynamic, resulting in changing needs. It is in the context of attempting to be responsive to these changes, and to the many wishes and needs that schools are asked to address, that needs assessment can be useful. Needs assessment is a process that helps one to identify and examine both values and information. It provides direction for making decisions about programs and resources. It can include such relatively objective procedures as the statistical description and analysis of standardized test data and such subjective procedures as public testimony and values clarification activities. Needs assessment can be a part of community relations, facilities planning and consolidation, program development and evaluation, and resource allocation. Needs assessment thus addresses a xiii XIV PREFACE broad array of purposes and requires that many different kinds of procedures be available for gathering and analyzing information. This book was written with this wide variation of practices in mind.

This report presents a critical analysis of the Delphi technique. The analysis is in four parts. First, the scope of the inquiry is defined, and issues pertinent to an evaluation of Delphi are raised. Second, conventional Delphi is evaluated against established professional standards for opinion questionnaires, and against associated scientific standards for experimentation with human subjects. Third, Delphi is evaluated with respect to its assumptions, principles, and methodology. Fourth, conclusions of the analysis are brought together and recommendations are made for the future use of Delphi.

Rapid development of computer technology in recent years has presented broad opportunities for its use in various fields, including the field of language teaching. Various materials have been designed to assist language teachers and learners with their goals. At present, a number of tools, including a vast variety of language teaching software, is readily available on the market. However, limited research has been conducted on identifying evaluation criteria for language teaching software from multiple perspectives. This study has undertaken to identify and reach consensus on the evaluation criteria for language teaching software essential for the software design and selection. Specifically, this study sought to answer the following two research questions: 1. What criteria for evaluation of language teaching software are identified in currently published literature, including textbooks, software reviews, and Instructional Technology and Computer-Assisted Language Learning research? 2. Which criteria are deemed important by the representatives of the Board and Council of the International Association of Language Learning Technology? A three-phase research design was employed to carry out the purpose of the study and to provide answers to the research questions. First, published sources for existent language teaching evaluation criteria were identified. Second, a joint list of criteria was compiled from a variety of sour

A Method of Multiple Criteria Evaluation

A Guide to Effective Programs

A Longitudinal Evaluation Employing the Delphi Techniques to Study the Impacts of an Organization Development Program

Concepts, applications and case studies

Evaluation of a Delphi Technique Based Expert Judgement Method for LCA Valuation

The Delphi Method and Its Application to Social Policy and Public Health

A new, comprehensive framework for programme evaluation designed to bridge the gap between the method- and theory-oriented perspectives, is presented in this book, newly available in paper. Chen provides an intensive discussion of the nature and functions of programme theory, approaches to constructing programme theories, and the integration of programme theory with evaluation processes. Specific types of theory-driven evaluations, as well as principles and guidelines for application, are developed for meeting different policy purposes. Application of systematic strategies is illustrated by concrete examples from a variety of evaluation studies in different fields.

Physiolophy. General applications. Evaluation. Cross-impact analysis. Specializet techniques. Computers and the future of delphi. Eight basic pitafalls. a checkelist.

Nursing

**Techniques and Applications** 

Consensus Building Among Different Cultural and National Contexts

The Case of Nonspecific Upper Abdominal Complaints; (met Een Samenvatting in Het Nederlands)

Methods, Models, and Applications

Urban Land Economic Evaluation Based on the Cloud Model

The Delphi Technique in Nursing and Health Research