

Using Delphi Method for Needs Assessment Training
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Delphi Method Literature Review
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1. Campos-Climent et al. (2012) - Delphi Method Applied to Horticultural Cooperatives.

Summary: This paper discusses strategic assessments needed for horticultural cooperatives in response to globalization and trade liberalization. It highlights the necessity of strategic reassessment due to changing demand dynamics and regulatory requirements.

Delphi Usage: The Delphi method was employed to gather expert opinions to strategically analyze the situation of horticultural cooperatives in Spain. This qualitative and subjective projection technique helped in understanding the strategic situation and future actions needed for these cooperatives amid the crisis in Mediterranean agriculture.

2. Abreu and Mesias (2020) - The Assessment of Rural Development: Identification of an Applicable Set of Indicators through a Delphi Approach.

Summary: This study identifies a set of indicators for assessing rural development, employing the Delphi methodology to analyze and select the most significant demographic, economic, environmental, and social welfare indicators.

Delphi Usage: The Delphi method was utilized to create a consensus among experts who analyzed 88 proposed indicators for rural development, leading to the selection of 25 critical indicators. The study highlights the method's effectiveness in integrating expert opinions in qualitative research settings.

3. Colclasure (2020) - Entry-Level Workplace Competencies Needed by Graduates of an Agricultural Program.

Summary: The study explores essential workplace competencies needed by graduates from a community college's agriculture program, aiming to align educational outcomes with industry requirements.

Delphi Usage: A modified Delphi technique was used to gather consensus from industry experts on vital competencies for entry-level agricultural workers. This method facilitated the collection of diverse expert opinions and aided in curriculum development tailored to industry needs.

4. Colevas et al. (2022) - Enhancing Surgical Teaching Effectiveness: A Needs Assessment.

Summary: This study seeks to identify the most effective methods for improving surgical education by examining various teaching strategies and determining their impact on learning outcomes in surgery.

Delphi Usage: Utilized the Delphi method to aggregate expert opinions on best practices in surgical education, aiming to standardize teaching methodologies based on expert consensus.

5. Costello and Rutherford (2019) - Expert? What does that mean? Describing the Term “Expert” in Agricultural Communications, Education, Extension, and Leadership Research.

Summary: This paper explores the concept of ‘expert’ in the context of agricultural education and communication, highlighting the need for clear definitions and standards in research methodologies.

Delphi Usage: The Delphi method was referenced as a tool for validating expertise and achieving consensus on the qualifications of ‘experts’ for academic and research purposes.

6. Bessmann et al. (2019) - Consensus on Technical Procedures for Simulation-Based Training in Anesthesiology.

Summary: This study focuses on developing a consensus on prioritized technical procedures for simulation-based training in anesthesiology through a Delphi process.

Delphi Usage: The study used a three-round Delphi process from March to July 2017 to achieve consensus on necessary technical procedures for simulation-based training in anesthesiology. The process was facilitated by a steering committee and involved key opinion leaders in the field.

8. Edgar et al. (2024) - Crisis Communication Needs Assessment: A Delphi Study to Enhance Instruction for Agricultural Communicators and Other Stakeholders.

Summary: This study aims to identify necessary competencies, traits, skills, and tools for agricultural crisis communication professionals. Through a five-round Delphi process, the study determined the extent to which these attributes are present among industry professionals, identifying eight major need areas.

Delphi Usage: The Delphi method was employed over five rounds to derive and validate a comprehensive list of needed competencies, traits, skills, and tools for training agricultural crisis communicators. The process involved multiple rounds of ranking and validating these attributes with industry stakeholders.

9. Geist (2010) - Using the Delphi Method to Engage Stakeholders: A Comparison of Two Studies.

Summary: This paper compares two formats of the Delphi method (paper-pencil and web-based) used for engaging stakeholders in the evaluation framing process for a non-profit community-based organization. It examines participation rates and the quality of data collection.

Delphi Usage: The study utilized the Delphi method in two formats to engage stakeholders in framing evaluations. The comparison revealed that both formats were effective in clarifying goals and developing evaluation questions, though the paper-pencil format had higher participation rates.

10. Frewer et al. (2011) - The Use of Delphi Methodology in Agrifood Policy Development.

Summary: The paper explores the application of the Delphi method in developing agrifood policies, focusing on its potential for consensus building among diverse stakeholder groups.

Delphi Usage: This article discusses the use of the Delphi method to facilitate consensus among stakeholders in the agrifood sector, highlighting its effectiveness in policy development contexts where diverse opinions exist.

11. Lin et al. (2020) - Construction of Evaluation Indexes for the Integrated Development of Leisure Agriculture Management.

Summary: This paper explores the development of structured evaluation indicators for leisure agriculture, an industry that combines agricultural resources with leisure activities to increase farmers' income and agricultural value. The study develops a quantitative model to analyze leisure agriculture management through the Delphi Method.

Delphi Usage: The Delphi Method was applied to refine and establish a set of evaluation criteria and indicators for leisure agriculture. The process involved experts from related fields who evaluated various aspects of leisure agriculture, including organization operations, resource utilization, and operational performance, to ensure the model's applicability across different scenarios.

12. Hsu and Sandford - The Delphi Technique: Making Sense of Consensus.

Summary: This document discusses the Delphi technique, a method for achieving consensus among experts on specific issues. It is used in various domains like policy making, needs assessment, and resource utilization, aiming to refine expert judgments through multiple questionnaire rounds.

Delphi Usage: The article elaborates on the use of the Delphi method as a structured communication process with several rounds of questionnaires intended to converge expert opinions on real-world issues. The technique allows for controlled feedback, anonymity of responses, and the use of statistical methods to analyze data, which helps in minimizing biases and enhancing the reliability of consensus.

13. Lamm (2023) - Issue Leadership: Establishing a Domain for a Food Security Agenda.

Summary: The study aims to identify leadership issues that influence the formulation and implementation of a food security agenda. Using the Delphi technique, the research seeks to gather expert opinions to guide strategic directions.

Delphi Usage: The Delphi technique was employed to gather and consolidate expert insights on critical leadership issues affecting food security. This method facilitated a structured dialogue among leaders and stakeholders, helping to outline priorities and strategic actions for addressing food security challenges.

14. Lundy et al. (2017) - Utilization of a Modified Delphi Method for Needs Assessment and Curriculum Revision of a Senior-Level Beef Systems Management Course.

Summary: This study utilized a modified Delphi method to assess and revise the curriculum of a senior-level beef systems management course. The process involved industry stakeholders who participated in a series of surveys to rank the importance of various course aspects, leading to a revised curriculum that better aligns with industry needs.

Delphi Usage: The modified Delphi method was employed over three rounds. Initially, stakeholders identified and ranked course outcomes. Subsequent rounds involved refining these outcomes through group discussions and additional rankings, ultimately guiding the curriculum revision.

15. Ramsey and Edwards (2011) - Correct title: Entry-level Technical Skills that Agricultural Industry Experts Expected Students to Learn through Their Supervised Agricultural Experiences: A Modified Delphi Study.

Summary: This research identifies the critical technical skills required by graduates entering the agricultural industry. Utilizing the Delphi method, the study gathered insights from industry experts to establish a consensus on essential skills, leading to recommendations for educational institutions.

Delphi Usage: The Delphi method was applied to gather and synthesize expert opinions on the necessary technical skills for agricultural industry entrants, aiding in curriculum development to better prepare graduates (OBJ).

16. McGeary (2009) - A Critique of Using the Delphi Technique for Assessing Evaluation Capability-Building Needs.

Summary: This article critiques the use of the Delphi technique for evaluating capability-building needs within organizations, particularly in government sectors. It explores the strengths and weaknesses of the method, particularly in terms of achieving reliable consensus among diverse expert groups.

Delphi Usage: The Delphi technique was criticized for its application in assessing evaluation capabilities within a government department. The paper highlights methodological concerns and the challenges of reaching a reliable consensus, suggesting improvements for future applications of the technique

17. Schmalz et al. (2021) - Lessons Learned from a Two-Round Delphi-based Scenario Study.

Summary: This study presents lessons learned from conducting a two-round Delphi-based scenario study focused on future research questions. It describes a structured process that integrates expert knowledge and forecasts through the Delphi method, which uses iterative rounds of expert input to refine scenarios and projections.

Delphi Usage: The Delphi technique was applied in a structured two-round process to gather expert opinions on future scenarios in various industries. This method allowed for controlled feedback and statistical group responses, which helped in shaping a detailed forecast and developing practical implications for future studies (OBJ).

18. Schoeman and Mahajan (1977) - Using the Delphi Method to Assess Community Health Needs.

Summary: This paper outlines the use of the Delphi method to assess community health needs in a 10-county region in central Texas. By engaging a diverse panel of citizens, the study sought consensus on the prioritization of health issues and demonstrated the feasibility of using Delphi for regional health planning.

Delphi Usage: The Delphi method was used over several months to achieve consensus among community members on health care issues. The process involved multiple rounds of questionnaires where participants ranked health problems by priority, providing a basis for health planning and resource allocation in the region.

19. Sorvali et al. (2024) - Farmers' Futures: An Application of the Delphi Method to Agricultural Planning.

Summary: This study explores the use of the Delphi method to project future trends in agriculture, focusing on the needs and challenges of farmers. The study aims to provide actionable insights for agricultural planning and policymaking through a series of expert panels and iterative feedback.

Delphi Usage: The Delphi method was used to consolidate expert opinions on future agricultural trends and challenges, involving iterative rounds to refine the insights and produce a comprehensive understanding of future directions in farming practices and policies.

20. Warner (2014) - Using the Delphi Technique to Achieve Consensus: A Tool for Guiding Extension Programs.

Summary: This paper discusses the application of the Delphi technique in Extension programs, illustrating how it can be used to achieve consensus among stakeholders and guide program development.

Delphi Usage: The Delphi method was highlighted as a structured process that involves multiple rounds of anonymous feedback to achieve consensus on issues within Extension programs. It was used for various purposes including setting programmatic priorities, identifying professional competencies, and supporting curriculum development.

21. Thomas et al. (2021) - Universal Design for Measurement: Centering the Experiences of Individuals with Disabilities Within Health Measurement Research.

Summary: This study examines the application of Universal Design for Measurement (UDM) to develop inclusive health measurement tools. It utilized the Delphi method to gather consensus on a new body image scale among women with and without disabilities.

Delphi Usage: The Delphi technique was used to facilitate consensus among groups of women with and without disabilities regarding the relevance of scale items. This helped in the content validation of a new body image scale, ensuring the scale's applicability to a broader demographic.

22. Toillier et al. (2022) - How to Assess Agricultural Innovation Systems in a Delphi Context.

Summary: This paper explores how the Delphi method can be employed to assess and improve agricultural innovation systems. It provides a framework for using Delphi in gathering expert opinions to enhance decision-making in agriculture.

Delphi Usage: The Delphi method was utilized to collect and synthesize expert opinions on agricultural innovation systems, aiming to refine strategies and approaches for effective agricultural development.

23. Warner and Harder (2020) - Conducting the Needs Assessment #10: The Delphi Technique.

Summary: This publication provides an overview of the Delphi technique as used in Extension programs for conducting needs assessments. It describes the structured communication process through which consensus on programmatic needs is reached among experts.

Delphi Usage: The Delphi technique is highlighted for its use in engaging experts in a structured, iterative feedback process to identify and prioritize needs within Extension programs. This method ensures that the needs assessments are comprehensive and reflective of expert consensus.

24. Zickafoose et al. (2022) - Forecasting Food Innovations with a Delphi Study.

Summary: This study forecasts food innovations over the next five years using the Delphi method. It engaged experts from various fields to reach a consensus on the definition of food innovations and the innovations expected to emerge, emphasizing their impact on health, food security, and environmental sustainability.

Delphi Usage: The Delphi method was used over three rounds to gather expert opinions and achieve consensus on upcoming food innovations. This structured approach helped define significant food innovations likely to impact the agri-food industry and public health.

25. Vogel, C. et al. (2019). A Delphi study to build consensus on the definition and use of big data in obesity research. International Journal of Obesity.

A Delphi method of consensus development was used, comprising three survey rounds. In Round 1, participants were asked to rate agreement/disagreement with 77 statements across seven domains relating to definitions of, and approaches to, using big data in the context of obesity research. Participants were also asked to contribute further ideas in relation to these topics, which were incorporated as new statements (n = 8) in Round 2. In Rounds 2 and 3 participants re-appraised their ratings in view of the group consensus.

26. Diaz, J. et al. (2023). Achieving farmworker health equity in Colombia: A participatory approach to identifying needs and strategies. Advancements in Agricultural Development.

Farmworkers, who are essential to the global food supply chain, are often exposed to a range of occupational hazards that can have negative impacts on their health. Hazards include exposure to pesticides, long working hours, and physical strain, among others.

Unfortunately, farmworkers, particularly those in low-and middle-income countries, often

lack access to basic healthcare services and face numerous health inequities. Colombia is no exception. The country's agricultural sector is an important part of its economy, but farmworkers in Colombia face significant health challenges. Many work long hours in difficult conditions and lack access to basic healthcare services. To address such challenges, there is a need for greater awareness and action targeting global farmworker health inequities, specifically in Colombia. The study's purpose was to reach consensus among community health workers who serve farmworkers in Colombia on the most pervasive barriers to healthcare access and quality of care, as well as on effective strategies linked to those barriers. Using the Delphi technique, seven barriers and five strategies achieved consensus. The results provide insights for key stakeholders such as extension educators to consider in the development of policy and practice intended to overcome relevant barriers and advance health equity among farmworkers.

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