

An Examination of Delphi Consensus Levels Over 30 Years in the *Journal of Agricultural Education*



Keith J. Frost & Dr. John Rayfield

Purpose and Introduction

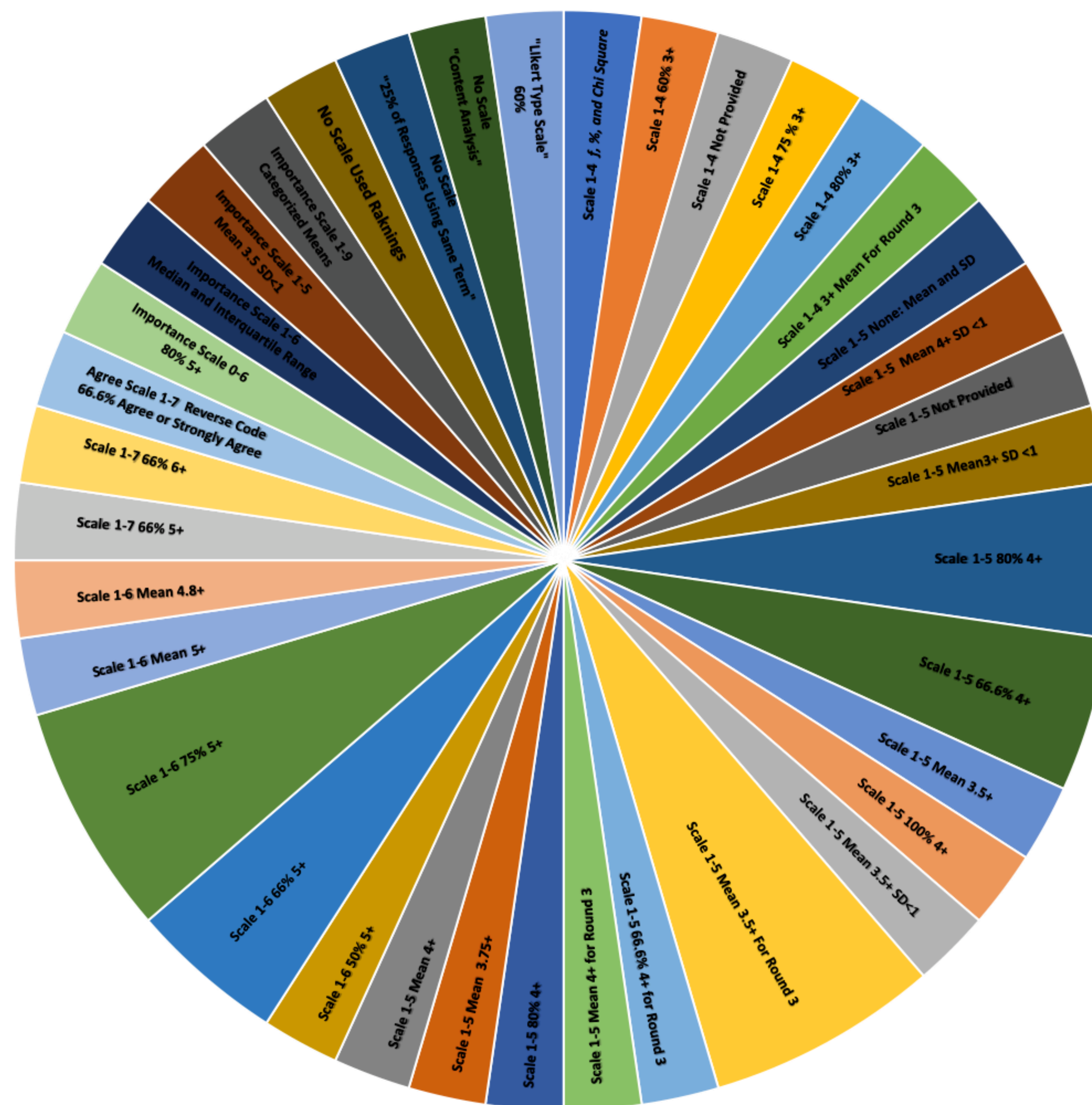
- Delphi studies are used to structure group communication to reach agreement (consensus), or determine priorities on complex subjects. (Linstone & Turoff, 2002; Hsu & Sanford, 2007)
- In the field of technological forecasting, there is little consistency in consensus levels (Von der Gracht, 2013).
- Delphi studies are common in agricultural education with very little discussion regarding consensus and no studies investigating the topic.
- The purpose of the study was: how has consensus been defined or calculated in articles published in the *Journal of Agricultural Education*?
- The research question aligns with the philosophy of the *Journal of Agricultural Education*. Specifically, "The journal shall publish article pertaining to....theoretical considerations pertaining to research" (AAAE, n.d.).

Theoretical Framework

- Theory of Planned Behavior underpinned this study (Ajzen, 1991; 2006).
- It is posited that by creating reflection, discussion, and "best practice" a potential shift in personal beliefs and normative attitudes will occur regarding the use of Delphi studies and consensus which could improve the professions use of Delphi studies.

Findings

- 47 Delphi studies were identified from years 1989-2019.
- Nine different Likert-type scales were defined.
- Three studies did not use a scale, two did not include the information, and final study used a "Likert-type" scale but did not define it.
- 41 different definitions of consensus were used.



Methods

- Articles were located by using the keyword "Delphi" in the search function of the online portal of the *Journal of Agricultural Education*.
- Documents were reviewed using summative content analysis methods for panel size, scale, and method of consensus determination. (Hseigh & Shannon, 2005)
- Hand tabulation values were entered in Excel for organization and editing.

Conclusions and Recommendations

- There is very little consistency in agricultural education's use of Delphi methods regarding scales and consensus levels.
- Further research and discussion is required to examine the implications of consensus, its meanings, and use.

References

- AAAE (n.d.). *JAE Philosophy*. Retrieved from: <http://jae-online.org/index.php/philosophy>,
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211,
- Ajzen, I. (2006). *Behavioral Interventions Based on the Theory of Planned Behavior*. Retrieved from <https://people.umass.edu/aizen/pdf/tpb.intervention.pdf>,
- Hsieh, H., & Shannon, S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288. Doi: 10.1177/1049732305276687,
- Hsu, C. C., & Sanford, B. A. (2007). The Delphi technique: Making sense of consensus. *Practical Assessment, Research & Evaluation*, 12(10), 1-8.,
- Linstone, H. A., & Turoff, M. (Eds.) (2002). *The Delphi method: Techniques and applications*. Retrieved from <https://web.njit.edu/~turoff/pubs/delphibook/delphibook.pdf> ,
- Von der Gracht, H. (2013). Consensus measurement in Delphi studies: Review and implications for future quality assurance. *Technological Forecasting & Social Change*, 79 (4), 1525-1536. Doi: 10.1016/j.techfore.2012.04.013