The Delphi: An Underutilized Method of Scholarly and Practical Research for a Public Relations Field in Transition

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In *prconversations.com,* Toni Muzi Falconi (cited by Yaxley, 2010) mused about the increasingly broad and amorphous public relations industry. He wrote that no matter what gathering of public relations people he attends—the 2010 World PR Forum in Stockholm, the annual BledCom Symposium, or master's courses at New York University, for example—philosophical discussions about public relations always get reduced to the same basic question: *But what is public relations, anyway?*

Falconi is not alone in recognizing the vague nature of public relations. As the industry transitions from traditional foundations to the Internet-driven, globalized arena, basic worldviews and conceptions of public relations are more confusing and debatable than ever. What does this mean for scholars of public relations? How will the industry reach greater clarity about its nature and its contributions to organizations and society? From where do we get the new perspectives around the principles and practices in the field? Answers to these questions continue to come from ongoing scholarly investigation into the industry, and the new studies incorporate a variety of research methods. Traditional methods, such as surveys, content analyses, case studies, and in-depth interviews will continue to guide research on new concepts and directions in the field. But other methods that are not as well-known can also offer new insights into the complexities of this expanding industry. One effective means for examining uncharted territory in public relations or any other industry is the Delphi technique.

This paper introduces, analyzes, and explains the Delphi, particularly as it applies to public relations. Developed around 1960, the Delphi has since been used by scholars and forecasters as an early exploration into complex issues or domains. In the past two decades, the method has been employed for research in public relations on at least ten occasions (including by the authors of this paper). However, aside from these studies, the public relations literature has little discussion about the technique and its possible applications or implications for research in the field. This paper is intended to dissect the Delphi method so as to offer guidance to public relations scholars who wish to use it in future studies. The authors explore the most appropriate situations for using a Delphi and identify the benefits and disbenefits of different aspects or applications of the method. They review the development of the Delphi methods from its early, paper-based roots to the Internet era which offers new tools for increasing the number of respondents and "speeding up" process.

The paper is created through a literature review of similar articles on Delphi studies in other domains, notably health communications as well as an examination of recent studies that have been conducted to advance issues in public relations.

Qualitative Research in Public Relations

When conducting formal research, it is important to find the method that best addresses the demands of the given study. If research looks into an established domain with concrete variables and hypotheses, surveys or experiments can be used. However, if a topic is highly complex, loosely defined, or investigated in a natural setting, qualitative methods can be more appropriate (Marshall & Rossman, 2011). Denzin and Lincoln (2000) wrote that qualitative research is a "situated activity that locates the observer in the world" (p. 3). Qualitative approaches are now used often in communication research, where “many central research issues cannot be adequately examined through the kinds of questions that are posed by hypothetical deductive methods and addressed with quantifiable answers” (Jensen, 1991, p. 1).

In using qualitative methods, researchers must satisfy the expectations of science (Anderson, 2010) and reduce biases that sometimes exist toward “soft scientists” (Denzin & Lincoln, 2000, p. 7). It has been argued, though, that qualitative research can have great strengths. Marchel and Owens (2007) explained that some criticisms “stem from limited understanding of the standards of judgment applied to the research … What quantitative researchers refer to as the validity and reliability of research, qualitative researchers reframe as the credibility and trustworthiness of research claims” (p. 304).

When sufficient rigor is applied, qualitative inquiries are increasingly seen as significant additions to social science—even more than can be achieved through quantitative research (Madill & Gough, 2008). Ponterotto (2010) explained that researcher and participants act as “co-investigators, thus leveling the power hierarchy common to many quantitative designs” (p. 583). The research framework and direction can be revised as new data emerges (Anderson, 2010), in contrast to quantitative approaches that often force participants to respond to predesigned and inflexible instruments. In entering a natural setting, the researcher can show interest in participants’ life experiences and thus can suspend “previously held conceptions and stereotypes” (Ponterotto, 2010, p. 583).

The public relations arena is naturally dynamic and characterized by ambiguous human relationships (Elmer, 2007). Stakeholders are constantly shifting, the Internet creates a forum fraught with uncertainty, and issues can arise from any place at any time (Sirkin *et al.*, 2008). This is especially true when crossing national borders into an expanding realm of contextualized environments (Molleda & Moreno, 2006; Wehmeier, 2006). Building relationships in and across cultures requires sensitivity, and the cultural construct is difficult to define and operationalize for research (Sriramesh, 2007). Such circumstances require phenomenological interpretations that maintain a richness of meaning and accurately portray the situation being examined.

Qualitative methods, therefore, are suitable for studying public relations. More than two decades ago, Toth (1986) explained that critical approaches should be used to expand understanding of public relations theories. Broom and Dozier (1990) and Daymon and Holloway (2002) also asserted that there was an important place for qualitative research in public relations. More recently, Van Dyke (2005) stated that "qualitative methodology was best suited to reveal the meaning of communication processes, outcomes, and lived experiences" related to so many facets of the public relations environment and to effective management of public relations programs (p. 161).

The Delphi Research Technique

As mentioned, one qualitative method that promises effective investigation in certain situations is the Delphi technique—hereafter referred to as Delphi. The term *Delphi* refers to a town in ancient Greece from which Apollo's predictions were transmitted to futurists in the land. As a result, Delphi always has been associated with forecasting, and that continues today (Delbecq *et al*., 1975; Uhl, 1983). The time frame for its origination varies from the late 1940s to the 1960s (Nielsen & Thangadurai, 2007), but scholars often attribute its source to the Rand Corporation (Landeta, 2006). From early Rand studies the Delphi gained a following mostly from the celebrity of participants such as science fiction writers and futurists Arthur C. Clarke and Isaac Asimov (Woudenberg, 1991).

The purpose of the Delphi is to facilitate a discussion that elicits a broad range of responses among selected experts in a given domain or around a particular topic. Kennedy (2004) explained, “The Delphi method provides an opportunity for experts (panelists) to communicate their opinions and knowledge anonymously about a complex problem, to see how their evaluation of the issue aligns with others, and to change their opinions, if desired, after reconsideration of the findings of the group’s work” (p. 504). Nielsen and Thangadurai (2007) added, **“**The Delphi method is based on a dialectical inquiry that encourages the sharing and exploring of divergent points of view” (p. 151). The idea is for the discussion to either “cause the range of answers to converge on the midrange of the distribution or [to] show a clear and reasoned dichotomy” (Vercic *et al*., 2001, p. 375).

Generally there is no one prescription for conducting a Delphi (Delbecq et al., 1975; Tersine & Riggs, 1976). On the surface, the Delphi is a relatively simple method of research. The process works through a series of “rounds” or “waves” (Vercic et al., 2001, p. 375). Two rounds is considered to be the minimum number and three seem to be the most effective number for producing the desired results—but these numbers hardly represent a rigid rule (Landeta, 2006; Linstone & Turoff, 1975). The process often begins with loosely structured, open-end questions or propositions and moves toward more quantifiable data or identifiable patterns through the combined input of the participants—but this, too, can be flexible. The goal is to move through the process until, as Vercic et al. (2001) noted, the discussion shows consensus or it becomes clear that there is no consensus. And this is far from simple.

The Delphi seems especially conducive to group problem identification situations where there is a "lack of agreement or incomplete state of knowledge concerning either the nature of the problem or the components which must be included in a successful solution" (Delbecq *et al*., 1975, p. 5). Powell (2003) wrote that the Delphi “is useful for situations where individual judgments must be tapped and combined in order to address a lack of agreement or incomplete state of knowledge” (p. 376). It also “is a method of structuring communication between a group of people who can provide valuable contributions in order to resolve a complex problem” (Landeta, 2006, p. 468). But in studies that rely on group participation, the very nature of socialization can create "process problems," as it were. Typical of these drawbacks is a *halo effect* that develops when one or two individuals dominate the conversation, (Kerr, 2009) or a *bandwagon* effect, when some participants are intimidated into silence or mask real opinions to be seen as agreeing with the majority (Tersine & Riggs, 1976). A well conducted Delphi can ameliorate these flaws because the participants do not physically gather for the study (Kennedy, 2004). Therefore, individual opinions are allowed to flourish in relative anonymity (Rowe, Wright, & Bolger, 1991).

When it comes to usage in an industry, the Delphi seems most effective as a normative process in which the experts seek to identify the practices and procedures that *should* exist to attain maximum effectiveness (Powell, 2003). Because of its utility in this regard, Rieger (1986) discovered through a study in the 1980s that more than 80 percent of all the known dissertations using the Delphi at that time (more than 250 dissertations) were seeking answers to normative questions. While the method peaked in the 1990s, it is still used among certain researchers even today. Landeta (2006) examined journal articles in the social sciences between 2000 and 2004 and unearthed more than 1,000 articles that had used the Delphi as a primary or secondary method of research. Similarly, Landeta (2006) found close to 900 dissertations and master’s theses using the method in a 15-year span from 1990 to 2004.

Because it is a forecasting technique, the Delphi also tends to stay abreast of the most recent scientific advances. Articles and books frequently lag behind actual research because of the time necessary for writing and printing. A Delphi study, by contrast, can provide a more updated exchange of information than a literature search by drawing upon the current knowledge and experiences of experts (Nielsen & Thangadurai, 2007) and rapidly reproducing it. Tersine and Riggs (1976) claimed that the Delphi has been incorporated into a variety of situations and diverse fields. It has been used for forecasting in sociological and technological realms and in education, business and industry, public administration, health and nursing, and numerous other research arenas (Rieger, 1986). And, although the process seems to have been largely ignored by scholars in international business, it has “a proven track record in global forecasting, public policy and strategic planning” (Nielsen & Thangadurai, 2007, p. 148).

The Delphi in Public Relations

Given that the Delphi is about problem solving and negotiation, the method can be particularly useful for public relations practitioners and scholars. The Delphi, noted Nielsen and Thangadurai (2007), is “well-suited to comprehensive investigation of complex environments characterized by uncertainty…. Unlike research questions best answered by quantitative methods which are essentially about counts and measures of things, the Delphi method encourages in-depth communication about the nature of things to provide answers to research questions aimed at the what, how, where, and when” (p. 151). This is important for public relations because, as VanSlyke Turk (1986) stated, "Increasingly, situations faced by today's organization ... demand this kind of pooled judgment, for this is an age of' maximum feasible participation'...." (p. 17). If that was true in the 1980s, certainly it would be much more relevant in today’s highly complex and challenging global environment. More recently, Duke (2009) considered "the method seems well-suited for public relations because it enables researchers to collect opinions from a select group of highly qualified practitioners who work at competing organizations in a wide geographic area" (p. 321).

The Delphi does not enjoy widespread use in public relations, but it has been employed occasionally to gain a sense of priorities and perspectives in the field. Scholar Mark McElreath seems to be the first and perhaps the most prolific Delphi researcher over the years. In 1980, he engaged the method to study research priorities in North America, and nearly a decade later he replicated that same study (McElreath 1980, 1989). Blamphin (1990) then used the Delphi to explore the value of focus groups in public relations research and practice; then White and Blamphin (1994) conducted a priority study for the United Kingdom which helped identify sixteen topics of importance. Sheng's (1995) Delphi analyzed the issues behind multicultural public relations. Wakefield (1997) then extended that thinking when he tested the Grunig (1992) principles of excellence in public relations in a 21nation Delphi on effective management of public relations in the global arena. At the same time, Synnott and McKie (1997) published a Delphi on public relations research priorities, also emphasizing international issues. They acknowledged McElreath's approach by basing their research on his 1989 study.

Vercic *et al*. (2001) ended the 20th century with a three-year study that compared basic definitions and worldviews of public relations in European nations. As the authors stated, "The article confronts a U.S.-based definition of public relations as relationship management with a European view that … argues also for a reflective paradigm that is concerned with publics and the public sphere; not only with relational (which can in principle be private), but also with public consequences of organizational behavior" (p. 373). van Ruler et al. (2004) used email as the communication tool, in an ultimately unsuccessful Delphi study which failed to achieve consensus. The study had a high initial response rate of 84%, but this had dropped to 62% in the final round.

Boynton (2006) reported that use of the internet-based Survey Monkey software for a Delphi study on ethical decision making in public relations had shortened the distribution and response times. Watson (2007, 2008) subsequently conducted a Delphi of senior public relations panelists from around the world to assess global priorities in the field, to identify gaps between academic research and the prerogatives of practitioners, and to classify research topics that could use funding. His study was particularly significant because it represented two major shifts in the way Delphis can be conducted. First, he followed Boynton (2006) in taking advantage of the new social media technologies by creating a blog site specifically to seek participants and proceed through the study. Second, instead of progressing from the typically recommended open-ended format to more objective, coded assessments, his Delphi asked for rankings in the first two rounds and then moved to open-end comments in the final round. The study also was a bit unusual in that it was completed in less than four months; however, like van Ruler et al (2004) and Boynton (2006), the study showed potential benefits of using social media to produce contemporaneous results. Kerr (2009) commented that the "use of email as a Delphi tool quickens the process from months to weeks" (p. 127) and aids momentum of group participation. Since Watson's study, there has been a (relative) flowering of the use of the Delphi method, with studies by Duke (2009), Kerr (2009), Wehmeier (2009), Tkalac Vercic *et al* (2012) and Zerfass *et al* (2012) being published. All have used email and internet communication, which has sped up the research process. Another study on practitioner attitudes toward public affairs issues was in progress in the UK, as this paper was being finalized (S. Davidson, 2013, personal correspondence).

The Delphi Process

There is no universal definition of the Delphi technique, as mentioned (Sackman, 1974). There also are no prescribed rules or procedures for incorporating the method into a given study (Evans, 1997; Keeney *et al.***,** 2006). The Delphi is applied in many various ways, some of which only slightly resemble the original process developed by the Rand Corporation (Goldschmidt, 1975). Perhaps for this reason, Powell (2003, p. 376) explained that "an abundance of methodological interpretations are demonstrated, leaving the technique open to criticism."

That said, a fairly typical pattern seems to have evolved for Delphi studies (Powell, 2003). In early usage of the method, Delbecq et al. (1975) outlined ten different steps, but generally the process has since been reduced to six main elements or considerations: (1) selection of the participants and solicitation of their involvement; (2) determination of the number of rounds needed for the study; (3) development of the various instruments; (4) responses and participation as the study progresses; (5) analysis of data from the various rounds; and (6) preparation of a final report. Each of these phases or considerations is explained below:

The ultimate objective, said Sheng (1995), is "for panelists to work toward consensus by sharing and reconsidering reasoned opinions with regard to comments, objections and arguments offered by other panelists" (pp. 99-100). However, Delphi studies can be useful even if consensus cannot be achieved, as long as the "holdouts" (those who continue to disagree with the majority) are given an adequate vehicle for voicing their continued rationale (Rowe et al., 1991). Those outlying opinions should then be represented somehow in the final report (Pill, 1971). According to Delbecq et al. (1975), a study of this type can last up to two years although studies (referred to above) in the past decade are typically completed in a four to six month period.

Selection of Participants

After the main research question is conceptualized and the Delphi is determined as the best method for investigating that question, the selection of Delphi panelists begins. Panel members should be experts selected according to five criteria: (a) they must have a basic knowledge of the problem area; (b) they must have a performance record (expert status) in the particular area under study; (c) they must be objective and rational, (d) they must have time available to participate until completion of the study; and (e) they must give the time and effort to participate effectively (Tersine & Riggs, 1976). Watson (2008) advised that to maintain continuity of participation and responses, “researchers need to consider whether those who are being selected as “experts” will be prepared to engage in a study that may take much more time and effort than quantitative surveys do” (p. 106). He recommended a formal invitation to the ‘experts’ prior to the first round in order to develop loyalty to the study over time. Wehmeier (2009), however, found that despite commitments toward participating in his international study, only 32 of 50 who agreed to take part completed the first round. Mortality of participants is an issue to be discussed later in this paper.

In Delphi research, the number of panelists is not as important as their expertise (Linstone & Turoff, 1975). In fact, the first Delphi solicited the opinions of just seven experts on the subject of atomic warfare (Pill, 1971). The literature, while emphasizing the need for qualified experts, gives differing advice about the minimum size for a Delphi sample. Duke

(2009) decided that a homogeneous group of ten to fifteen would “offer good results. Therefore, the seventeen-member panel probably was an appropriate number” (p. 322) for her study, which was completed with fourteen participants. Kerr (2009) also relied on the rubric of ten to fifteen participants from a homogeneous background (educators) and completed her study with eleven participants. Wehmeier (2009), taking note of the Boynton (2006) and Watson (2008) research, had a target of thirty experts, commenting that “many scholars prefer a maximum of 30 participants” (p.268). In accordance to this thinking, the Zerfass *et al* (2012) two-stage study on social media had 32 experts (Fink & Fuchs, 2012).

In public relations, it often is appropriate and perhaps even desirable to capitalize on this combined interest and experience of both scholars and practitioners. According to Pavlik (1987), public relations scholarship should be of concern to both of these groups. Academics understand the theories and principles that lead to enhanced performance, but many of them have not practiced in the field enough to understand the day-to-day realities. Practitioners, on the other hand, are immersed in the daily experiences but often do not understand the theoretical principles that form the basis of effective practice. They are then reduced to the "trial by error" judgments that can be inefficient at best and costly at worst in international circumstances. Recognizing the strengths and weakness offered by either academic or practitioner data, a combination of these theoretical opinions and daily experiences is the best way to develop useful theories for future practice. Watson (2008) used a three-part sample for an international study of research priorities which, in addition to academics and practitioners, involved CEOs (or similar title) or public relations industry and professional bodies. These were included “because of their overview of the whole sector and not just the issues that impinged on individual academic or professional respondents” (Watson 2008, p. 107)

The desired experts are chosen usually through what Newman (1994) called a “snowball approach.” This means that a few widely acclaimed experts are selected and asked if they would be willing to participate. They are then asked to produce names of others whom they view as experts in the field. Often, four or five lists of experts are obtained this way. The best potential panelists are those whose names appear on more than one of the lists (Delbecq et al., 1975). Once the list is produced, the people on the list are contacted and asked to participate.

The experts who are originally selected to help initiate the snowball process should be "likely to possess relevant information or experience concerning the objectives toward which decision makers are aiming the Delphi" (Delbecq et al., 1975, p. 88). Because of their experience, the participants should have many contacts whom they believe also would have expertise. Thus, they are asked to provide the names of another 10 to 20 potential respondents. The names are collected and contacts are made to complete the desired respondent pool. Nielsen and Thangadurai (2007) noted that this snowball approach, which uses people already seen as experts in a given domain of study, is important; this “helps speed up the process of gaining access and agreement from the participants as [experts] recognize more readily that they are being invited to join an elite group” (p. 159).

After participants are selected, a first questionnaire is developed and sent to them. This is called the first round. Delbecq et al. (1975) distinguished between two types of first-round instruments in a Delphi. The typical format has one broad question that allows the participants to lead the study into subcategories and variables. This is the open-end approach mentioned above. The alternate design can "approximate survey research, where variables are already developed and concern is only with refinement and movement toward consensus concerning the relative importance of individual variables" (p. 90). This is the closed-end format. However, Rowe et al.

(1991) warned that too much structuring of the first instrument sabotages the intent of the Delphi by limiting the valuable forum of ideas and opinions that the experts are meant to provide.

The questionnaire contains either open-ended or closed-ended questions or propositions that seek detailed responses. Powell (2003) claimed that the most effective Delphis are those whose first round instruments are open-ended so that the experts have the greatest opportunity to help frame the questions to be investigated. This approach also “increases the richness of the data collected” (p. 378). Once the responses are returned, they are transcribed and coded. In earlier times, responses would be separated into declarative statements and then each statement was placed onto an index card so that the statements could be analyzed for patterns and exceptions (Delbecq, et al., 1975). Today, this entire process is done through various computer techniques.

Before creating a second round instrument in the mid-1990s, one of the authors had the opportunity to present a paper at the BledCom international public relations research symposium in Slovenia. This provided a forum for feedback from about 40 senior academics and practitioners from different parts of the world. This was important because Delbecq et al. (1975) recommended that another group of decision makers should be involved in the assessment process beside the respondents "to appraise the utility of the information obtained" (p. 85).

The second "round" of the Delphi can begin by creating a second instrument to which the participants again respond. It usually is necessary to develop the second round instrument using an approach that Pill (1971) referred to as "the method of summated ratings" (p. 61). Delbecq et al. (1975) also outlined this alternative. The instrument usually contains closed-end, declarative statements that reflect the first-round responses. Attached to the right of each statement typically are Likert scales with five points - strongly agree, agree, neutral, disagree, and strongly disagree (the summated ratings). Respondents are asked to read the statement and mark the point on the scale that most represented their opinion about that statement. Also, below each statement and scale were three lines, on which the panelists could give additional comments to explain their reasoning if they so desired. With this process, the participants can react to each other's opinions and ideas. In creating the instrument, the researcher should be careful not to infuse his or her own biases into the process.

Participants are asked in the second round to re-examine their own positions and revise opinions as they feel necessary. According to Delbecq, et al. (1975), Likert scales can be attached to each of the statements in the second instrument so that respondents can indicate to what extent they agree or disagree with the statement shown. The statements selected for the second round should represent both the majority and outlier comments from the first round. This way, respondents would have a second chance to agree or disagree with the fall spectrum of opinions on each proposition. In essence, they could respond to each other's opinions, an important characteristic of an effective Delphi study (Landeta, 2006).

It is perhaps important to note that the objectives for the first and second rounds are somewhat different. The first round instrument remains open ended to allow for the broadest possible diversity of responses without losing control over the information sought. The second round, by contrast, provides a closed-end format where ranges of opinions and feelings were then corralled into a more objective format. Another important difference is that in the second round, instead of responding to propositions from the researcher, the panelists are now "communicating" with each other. In other words, with few exceptions the second-round statements should be included in the exact wording of the first-round responses.

This Delphi pattern that moves from open-end to closed-end instruments is consistent with one format suggested by Delbecq et al. (1975). It also satisfies Agar's (1986) suggestion that qualitative data be allowed to emerge from the respondents themselves to maintain the holism and richness of that being studied. At the point when the respondents receive a second instrument, a real "discussion" process emerges among the experts in the study. This is when they can really respond to what their colleagues have collectively fed back to the researcher about the relevant questions and issues.

Assuming that the second instrument accurately reflects the collective statements of the panelists, this process can begin to accumulate the authentic opinions the experts are producing and move toward consensus. This discussion of the qualitative data from the first round is the very element that makes such data rich (Pauly, 1991). It starts to reflect the realities that are "out there" and, in this case, begins to crystallize the debate.

As mentioned earlier, the goal of the second round is to achieve consensus. The important consideration in this process is that group members are communicating with each other - they are responding, as much as possible, to verbatim statements of their peers. When the responses are returned, the researcher again analyzes them to determine how much consensus has been achieved. At this point, if the data show no significant consensus, it is typical to send out a third round of questions based on second-round feedback. This process can continue until consensus has been reached or it becomes apparent that consensus will not be achieved.

With the data entered into the computer, the researcher can seek patterns within the responses. Outcomes can range from simple histograms that showed the dispersion and the means for each statement, to ANOVAs to explore for differences in opinions based on gender, location, and status. Statistically significant differences would not be appropriate with such small sample sizes, but patterns of opinions within the demographic groups can be found. In any Delphi process, a third round of responses may be used (Delbecq, et al., 1975). According to

Sutherland (1975), the main goal of a Delphi is to reach consensus within the panel. However, Powell (2003) suggested that consensus is not always a mandatory ingredient. Diversity of opinions also can be valuable even after completion of the Delphi, particularly in a previously unexplored field, if they indicate the current state of the field and offer potential direction for the future. As Delbecq et al. (1975) and Tersine and Riggs (1976) indicated, at the end of the second round the researcher must make a decision as to whether a third round is critical to learning more about the subject under study.

It is important to ensure that the conclusions of the study reflected a broad range of expertise. This use of pooled judgment is intended to satisfy the criteria outlined by Van Slyke Turk (1986) for advancing the understanding of a relatively unexplored domain. It also is meant to overcome the problems of potential personal bias mentioned by Agar (1986) and Landeta (2006), the difficulties of group socialization outlined by Tersine and Riggs (1976), as well as the sheer impossibility of pulling together a group from all over the world.

Limitations of the Delphi

Over the years, the Delphi technique has attracted some critics because of perceived limitations. As Goldschmidt (1975) and Landeta (2006) have argued, however, the criticisms are not so much about the Delphi method itself as about the improper application of the method by some researchers. Nevertheless, criticisms involve such potential weaknesses as improper selection of the participants, mortality (panelists dropping out of the study), and inappropriate configuration of the first round instrument. Another limitation, related more to the intercultural aspect of some studies than to the characteristics of the Delphi, is the potential for misunderstanding the instruments and responses due to language and cultural differences of the researcher and participants. Tkalac Vercic *et al* (2012) reported that despite sending all their Delphi study communications in English, they received responses to their first round in English, French and German across a four-month period, which indicates there may have been linguistic and cultural barriers to transcend.

The first weakness, poor panel selection, surfaces when “experts” selected for the study are not really experts. As Kuhn's (1970) research suggested, the “traditional wisdom” that has been accepted in a domain may be invalid. Thus, there is no guarantee that the opinions of experts will produce accurate results. This could be problematic in some aspects of public relations. For example, when public relations is practiced on a global scale, it is possible to use a sample survey of officers in national associations (see Watson, 2008 for a recent example). If these people have little experience outside of their own nations, involving them in a so-called global study might become a case of what James Grunig once referred to as “pooling ignorance.” However, it generally is acknowledged that if a person has significant education and experience in a given field, that person's opinions should be valuable in helping that field grow toward a state of maturity (Pill, 1971).

The second limitation involves research mortality, or participants dropping out before completion. Even when all of the respondents begin with honorable intentions, unforeseen changes in priorities, illnesses, or even deaths can occur over time. Such losses can skew the results (Babbie, 1989). Therefore, it is important to try to keep all participants committed until the end. This problem could surface in any research project, but it can be a particular problem in a Delphi study because, as Reiger (1986) and Landeta (2006) have explained, the length of time required to complete a Delphi can be anywhere from several weeks to two years.

Related to mortality is the potential detriment of insufficient motivation. Participating in a Delphi requires much more than simply filling out a questionnaire. Respondents are asked to carefully think through possibilities, consequences, and other factors surrounding the questions and to write or record their thoughts in depth. They are required to participate not just once, but two or three times. If they are not expressly interested in the study, or do not see its relative merits, they can lose their willingness to participate. Their motivation also can wane if the study has too many rounds, or drags on too long (Woudenberg, 1991).

Some of the recent Delphi research discussed earlier in the paper suffered from a range of mortality problems. Duke (2009) and Kerr (2009), for example, suffered losses of two or three participants from panels of fourteen or fifteen, whereas Wehmeier (2009) saw his participation rate tumble by 36 per cent in the first round and a further six per cent in the second round. However, the study was completed with 29 members. Commenting on the 2012 social media Delphi in central Europe, Zerfass and Linke commented that “securing that all experts participate in all steps in the planned time was demanding” (A. Zerfass and A. Linke, personal correspondence, March 2013). Their approach called for the design of a study appropriate for the research objectives whilst attractive for the experts to open and take part in. This study retained its thirty two experts through both rounds, which were conducted by email.

An inadequate first-round instrument also has been identified as potentially problematic. Rowe et al. (1991) criticized the "vast majority of studies" that used structured first-round instruments instead of open-ended questionnaires. They contended that the structured questionnaire does not necessarily guarantee a poor Delphi study, but it does limit the involvement of the panelists in constructing the parameters for study, thus negating the very purpose for including experts in the Delphi. "While this simplification is reasonable in principle," they explained, "the actual questions used [in a closed-ended instrument] are often highly suspect" (p. 241). Counter to that argument, however, are the examples of studies by Synnott & McKie (1997) and Watson (2008), which successfully followed the outcomes of earlier Delphi studies (notably of McElreath, 1989) to construct a first wave of discussion based on more closed-end questions.

The factor that is connected to intercultural diversity is the potential for misunderstandings caused by differences in language and cognition. This is especially true in a project involving international respondents (Linstone & Turoff, 1975; Tkalac Vercic *et al*, 2012). Terms that might be understood in one cultural context can take on different meanings or nuances in another culture. Also, because intercultural studies often are conducted in a more universal language like English (as the vast majority of references in this paper were), the researcher has to rely on the extent to which all participants from the various countries understand that language and comprehension invariably ranges from excellent to poor. Therefore, great care must be exercised to preserve comprehension levels.

Criteria for Evaluating a Delphi Study

As Pavlik (1987) explained, good research in an underdeveloped domain contributes to its current practice as well as to the establishment of a theoretical framework for future research. Qualitative research that explores a new field is essentially an ongoing dialogue; when one study is completed, others are encouraged to scrutinize, critique, and add to the discussion. This is how knowledge expands in a new and dynamic field. This exploratory research process is quite different from quantitative research of the more operationalizable constructs. Similarly, criteria for assessing a qualitative study are different from the criteria for evaluating quantitative research. Evaluators of quantitative research determine whether or not a study meets the criteria of validity and reliability. A study is valid if it truly measures what it is supposed to measure. It is reliable if the measurement tools used are consistent or can be replicated (Broom & Dozier, 1990; Babbie, 1989).

Babbie (1989) noted that a "certain tension often exists between the criteria of reliability and validity. Often, “we seem to face a trade-off between the two" (p. 125). The reason for this, he claimed, is that science often demands specificity in measurements; yet this specificity robs concepts of their "richness and meaning." Experiments, for example, are highly reliable, but their validity can be questioned because the results were obtained in a laboratory rather than in a "real world" setting. By contrast, a case study can be meaningful to public relations scholars and practitioners, but the subjective nature of the case method can reduce its reliability.

The Delphi technique is not generally intended to be a quantitative study, so constructs of validity and reliability technically do not apply to it. However, the Delphi probably would be considered more valid than reliable, although it attempts to address both concerns. Whereas a case study is sufficient with one or two “units of observation,” the Delphi technique calls on the opinions of a larger number of experts. Thus, it comes closer than a case study to reflecting the “real meaning” of validity described by Babbie (1989). Most studies in the public relations field, for example, solicit the expertise of scholars and practitioners from many nations who are experienced with at least some extent of its theory and practice. The results of their combined expertise should be highly useful for future practice. If the study instruments were designed properly, the number of respondents should contribute to the reliability of the exploration.

The Delphi technique also should have more validity than if a questionnaire were distributed among a random sample of practitioners with some type of public relations practice title. As indicated earlier, as well as in the Excellence Study (J. Grunig, 1992), the mere act of being placed in a certain position is no guarantee that the practitioner has learned the activity in an appropriate or useful manner.

Ethical and Practical Considerations

Any research project must adhere to certain ethical principles to preserve the dignity and privacy of the participants. In addition, there are practical considerations that affect the integrity of the data collected. These concerns are discussed below.

***Anonymity and Confidentiality*:** One main ethical concern for participants of a study is that their involvement remains confidential. This is particularly important in a Delphi study, because knowing who other panelists are could skew their responses.

Voluntary Participation and Personal Harm: A major element of social research is that any participation should be voluntary. Participants should be instructed beforehand that any information or opinions they supply will be used for research purposes and publication. In addition, the researcher should always protect individual responses, releasing information as aggregate data.

Subject Mortality: Landeta (2006) indicated that respondents must continue with the Delphi process through each stage. This continuation of respondents needs to be nourished as much as possible in any research process (Babbie, 1989). To maintain interest, the researcher should work quickly between each round of instrument mailings.

Influence of the Researcher: Another concern in any research project is the ability to collect the data without undue influence on the data collected (Sheng, 1995). If the researcher influences the data in any way that may "lead" the respondents to similar opinions (a concept similar to "biasing" the questions in a survey), it will skew the results (Babbie, 1989). In presenting questions or propositions to panelists, it is important to include a variety of questions specifically intended to "challenge" each question presented.

Conclusion

Broom (2006) commented that if the public relations industry is going to continue its advancement, the field cannot limit its enquiry or the methods it uses. His comments about the need for more research and theory building in public relations are particularly relevant:

> Public relations is not so developed that we can draw a boundary around a body of knowledge and limit our enquiry to what is reported in public relations literature. Rather we are in the early stages of building theory that may someday provide a foundation for the emerging profession and its practice (Broom, 2006, p. 141).

Qualitative research, as exemplified by Delphi studies, offers greater richness and insights than do quantitative methodologies. Delphi studies, although much less used than other forms of qualitative enquiry, are now aided by advances in communication technology to delve into issues of contemporaneous importance to public relations with rapid turnaround. This paper has set out a case for wider use of this method which can be applied across cultures and types of knowledge and expertise including academics, senior practitioners and public relations industry leaders. Their expert discussion can assist the field to develop both theory and practice in consensual manners that offer benefits to many. While not without its limitations, the technique is one which, in situations of uncertainty that often characterize relationships between organizations and stakeholders, has the potential for useful application to the public relations field.

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