

Using the Delphi Technique to Identify
Components of a Tertiary Strategic HRM
Curriculum

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Abstract

This study sought to identify key knowledge, skills and attitudes required of SHRM graduates as identified by experts in the academic and practitioner fields. The Delphi technique was selected as it has been used effectively in other contexts to develop consensus amongst experts for a range of purposes, including curriculum design. Explanation of this technique, the rationale for its use and reflections on its use in curriculum design by both participants and researchers is provided.

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Introduction

Strategic Human Resource Management (SHRM) is an emerging area of practice within the discipline of Human Resource Management. It integrates the areas of Strategic Management and Human Resource Management and has emerged to address gaps in the literature in these fields (Boxall & Purcell, 2011). Teaching of SHRM is often viewed as an extension of the more operational and traditional areas of HRM. This is evident in the texts available, the majority of which cover HRM generally and devote one or two chapters to Strategic HRM. Those that do purport to be SHRM texts present a divergent range of topics.

As academics teaching SHRM, we considered whether our SHRM teaching should take a strategic management focus, viewing SHRM as a sub-area of strategy and drawing on the strategic management literature and practice, or whether it should cover the more traditional HRM areas, albeit with an organisation-wide focus. The decision on this crucial question leads to potentially different skills, knowledge and attitudes being required of our students and influences the direction of our teaching efforts.

The views of SHRM practitioners, who employ graduates, as well as leading SHRM academics, would assist in solving this question. Once there is clarity around what knowledge, skills and attitudes our students need to develop, developing suitable curricula and teaching strategies can be achieved.

Review of the literature regarding research tools for gaining expert opinion and consensus as well as that dealing with curriculum development both identified many examples of the Delphi technique being used, particularly in applied fields such as medicine and nursing. Given our interest in developing an improved curriculum for SHRM teaching and our desire to ensure we had input from a wide variety of experts, the Delphi technique offered the opportunity for a collaborative approach involving a range of physically wide spread experts.

In researching the Delphi technique to inform our study, we identified a number of studies that had implemented varying approaches, but with little guidance on how the technique should best be implemented. This paper therefore provides an overview of our implementation for achieving consensus amongst a diverse group of experts which may prove helpful to those seeking to undertake a similar process.

Initially, background information about the development of the Delphi technique is provided along with a general explanation of how the process operates. Our reasons and

purpose in employing this technique are discussed, along with an overview of the reflections on the Delphi process we obtained from our participants. The paper concludes with a summary of what we have learned from implementing this process and our thoughts and recommendations for those contemplating using this technique.

Overview of Delphi

The Delphi technique has evolved from work undertaken by the Rand Corporation with the US military in the 1950s to obtain consensus of opinion amongst a group of experts using questionnaires and controlled feedback (Linstone & Turoff, 1975).

The technique has since been used for various purposes and in many settings, including academic research (e.g., Keeney, Hasson & McKenna, 2001, Okoli & Pawlowski, 2004) and curriculum development (e.g. Linstone & Turoff, 1975, Alahlafi & Burge, 2005). The key characteristic of the technique is that it aims to achieve ‘structured communication’. As a communication process its applications are many and varied, ranging from examining historical events to exploring and evaluating options (e.g. Linstone & Turoff, 1975) as well as curriculum development. Linstone and Turoff (1975) suggest it is the nature of the group communication process rather than the problem being addressed that dictates the appropriateness of the technique. They suggest Delphi maybe appropriate in circumstances where:

- The problem may benefit from collective subjective judgements
- Those who need to contribute to the problem have no history of communication and/or may have diverse expertise
- The mixed range of expertise is needed.

Or to manage logistics such as:

- The number of ‘experts’ is too large for face to face discussion
- Regular meetings are not feasible.

Delphi may be suited in situations where there is a need to structure a group communication process in order to achieve a particular objective.

The technique itself can be implemented in different ways however it generally involves 3, 4 or more phases (Linstone & Turoff, 1975). In Phase 1 the issue is explored and participants are able to contribute information they consider relevant. The next phase (Phase 2) involves reaching an understanding of how the group views the issue – areas of agreement and disagreement as well as assessment of importance, desirability, feasibility and so on. A third phase is included if there is significant disagreement that needs to be explored, ‘teasing out’ reasons underlying the different views. The final phase involves feeding back and evaluation of the information gathered in previous rounds.

Justification for Using Delphi

The key purpose of our study was to identify the knowledge, skills and attitudes that need to be included in order for our tertiary level SHRM curricula to be contemporary and relevant. The broad range of subject matter included in SHRM curricula at different universities and in SHRM texts suggests this is very subjective. We therefore wanted to canvas professional academic and practitioner opinions from experts in the field. We felt identifying the knowledge, skills and attitudes would benefit from this wide range of opinions.

'Experts' were drawn from the academic and professional practitioner spheres and included internationally recognised HRM authorities and senior HRM specialists from a broad range of public and private sector organisations. Panellists had diverse backgrounds and expertise and inclusion of experts from both the academic and professional fields was likely to be too large for effective face to face discussion. The experts were also located locally, interstate and overseas which meant holding regular meetings was impractical. The problem we wanted to tackle had a clear objective that we felt would benefit from a structured communication process. The Delphi technique offered an effective way to achieve our aims and was well suited to it.

How Delphi was Employed in Our Study

We used a web based Delphi technique to address the focal question: What core knowledge, skills and attitudes (KSAs) should Strategic HRM students acquire? Surveys were developed using the Qualtrics platform and circulated as an email link.

Since we wanted to canvas the views of expert academics and practitioners we needed to devise criteria for selection of experts as well as addressing the issue of the number and size of panels to be used. Some commentators (e.g., Okoli & Pawlowski, 2004) recommend adoption of rigorous guidelines for the process of selecting experts for the study. In contrast, other researchers prefer to interpret expert panel broadly as the individuals involved in the work. The criteria we employed to identify suitable academics to invite to participate were based on: academic qualifications, experience teaching SHRM, scholarly publication history, current position held and membership of scholarly journal editorial board. In the case of practitioners our criteria were: seniority of current SHRM position, years of experience as a SHRM practitioner, service on board of HRM professional body, publication in HRM practitioner journals and academic qualifications.

There is also little agreement in the literature about the size of the expert panel (Keeney, et al, 2001). According to Okoli and Pawlowski (2004), the literature recommends 10-18 on a Delphi panel and some studies have indeed used panels that fall within this range. When we considered the size of the final panel it was necessary to allow for a degree of attrition through the process. Since most studies indicated minimum panel size of 10-15 was needed, we felt it was necessary to commence the first round with at least 30 experts, ie 15 academics and 15 practitioners. In all we invited 64 academics and practitioners to participate, with 37 accepting and 35 completing the full process. Round 1 commenced with a well balanced panel comprising 18 academics, 11 practitioners and 7 participants who identified as both academics and practitioners.

In some Delphi studies (e.g. (McGuire & Cseh, 2006) round one is a 'brainstorming' stage, where panel members respond to open-ended questions, while in other studies (e.g. Rossouw,

Hacker & de Vries 2011) participants are asked to respond to specific propositions contained in a structured questionnaire. We chose to take the latter approach and for Round 1 we developed a set of statements drawn from the literature regarding key areas of knowledge,

skills and attitudes that ‘some people’ might think are core areas in SHRM. Panel members were asked to indicate how important they felt each was using a Likert scale and to add any additional areas they felt should be added to the list.

In Round 2 we fed back the results of the Round 1 survey and asked panellists to rate the importance of the additional knowledge and skill items. No additional attitude items resulted from Round 1 so panellists were asked to rank the attitudes (5) in order of importance.

For the final round, Round 3, we fed back the results of Round 2 and provided panellists with a consolidated list of the knowledge (30) and skills (11) areas and asked them to select the top 10 knowledge areas and top 5 skill areas they thought should be taught. We also asked them to indicate their views on their experience of the Delphi process.

We confirmed participation in the study with each participant by email, advising them that the Round 1 survey would be sent in the next week. Participants were asked to complete each survey within a 10 day period. We attempted to collate the survey information and develop the next survey for circulation within approximately 2 weeks to maintain momentum and engagement.

Round 2 and 3 each commenced with summaries of the findings of the previous round and a brief reminder of the process and timeline so that participants would be aware of when to expect the next contact from us.

Key Findings and Participants’ Reflections on the Delphi Process

The Delphi process broadened the range of our data considerably. The final consensus list of the top ten knowledge items comprised only six of the original 17 items we proposed from reviewing the literature and included four new items generated by the panel. Only one of the skills we proposed from the literature was included in the top five, with the other four being generated through the Delphi process. This significantly expanded our understanding of the skills our graduates require beyond those identified in the current literature. The list of attitude items we proposed was agreed by the experts with no additional items emerging and the panel determined an agreed ranking in order of their relative importance. Strong consensus was achieved in all three areas.

Overall, the additional contributions and strong consensus achieved have provided us with a clear direction in the development of our new SHRM curriculum.

In response to our question asking participants to reflect on the process we received 23 responses from the 37 participants. Analysis of these comments identified six themes; three were interpreted as strengths and three identified some limitations about the process.

The strengths identified can be summarised as follows:

- 1) That there was no dominant voice; the method allowed different perspectives to be presented. This view was evident in comments such as ‘*..a useful process to ensure that consensus is not skewed by the perspectives of a particular group..*’. Since this is a key purpose of the Delphi approach, this was a positive endorsement.
- 2) The process was efficient and practical which possibly accounted for the high retention rate. ‘*..an excellent and efficient way to gather data*’. Given the busy roles of all the experts we invited, an efficient process that they were able to participate in with minimum disruption to their work was an important aspect to help ensure their continued participation.
- 3) The process fostered reflection by participants on their own practice, e.g. ‘*..opportunity to think beyond the day to day functions..*’. This finding indicates that not only was the process beneficial to the researchers, the participants found it stimulating and a worthwhile opportunity to reflect on their own practice and career. This provided an additional benefit to them from their participation and encouraged their ongoing engagement in the process.

The themes that indicated limitations of the process were:

4) An apparent inability to address varying understanding inherent in the process; that is, the HR practitioner focus was likely to be different from the academic focus. Whilst this is a reasonable comment on the process, it was this very issue that formed the rationale for our study. Our intent was to try to draw some consensus from the contrasting academic and practitioner views in order to develop a curriculum that can adequately prepare graduates for both fields. This is an eternal problem for academics charged with teaching students for the dual purposes of professional practice and potential academic careers.

5) There was a lack of pedagogical perspective. This view is best illustrated in the comment ‘...all panel members will want the best trained students, but may not see the link between theory, practice and pedagogy...’. This comment highlights the dilemma underpinning the study and is largely our rationale for the second phase of the study in which we will consult with experts in teaching and learning to identify effective strategies for delivering learning outcomes developed from the KSAs identified through the Delphi process. By developing pedagogically sound teaching strategies we will develop curriculum and teaching approaches that link theory, practice and pedagogy.

6) Some perceived the process as restrictive due to mandatory responses. This is a constant frustration we face in our teaching – so many areas to cover, so little time! The reality we face in the tertiary sector is that there is a finite structure to all under- and post- graduate courses which restrict the amount of content that can be included, usually to 12 or 13 week semester blocks. Thus the mandating of selections and rankings mirrors the parameters under which curriculum must be developed and was intended to force participants to identify the most important of the infinite possibilities that might be taught within the SHRM discipline.

Lessons Learned

From undertaking this study we have gained some insights into using the Delphi technique that may prove beneficial to others contemplating using this technique.

1. Keep the research question simple, clear and concise. Even though we invited participants we felt would be interested in the topic, they were all busy professionals so a simple, clear and concise research question allowed them to easily focus on what the study was about and what was required of them. With three separate surveys to complete over the period, it also made it easier for them to refocus on receipt of subsequent surveys.
2. Consider how many rounds are feasible. Although in many the Delphi studies the first round is used to brainstorm ideas, given the breadth of potential knowledge items in particular that have already been discussed in the SHRM literature, we felt there were sufficient ideas for us to prepare these from the literature and our own experience. We used these to start the discussion and consensus building process. By including an opportunity for participants to proffer additional items for inclusion, we did not feel we were disadvantaged approaching the study in this way and it allowed us to keep to three rounds rather than four or more, an important consideration in trying to retain participation of a large group of busy professionals over an extended period. We believe this contributed to our low dropout rate.
3. Keep to a tight timeframe. Focus was maintained by ensuring the results of each round were summarised and fed back to participants quickly. Throughout the survey period we ensured there was no more than 2 weeks between surveys so that participants would not forget the process and would stay engaged. With the volume of email traffic most professionals receive it was important to ensure the gap between surveys did not result in participants, on receiving our subsequent emails, assuming this was an issue they had already dealt with and deleting the link.
4. Keep thanking for previous input and informing them of next step – what and when. With three surveys in all, in order to avoid participants erroneously thinking they had already completed our survey, we ensured each email we sent referred to what stage we were up to,

acknowledging their input to date and indicating the next stage and time frame. We felt this would ensure they did not think emails were duplications.

5. Recruit panel members for whom the topic is of interest. A number of panel members indicated in their feedback that the findings of the study are of particular interest to them and that they are looking forward to publication of the final results.

Conclusion

Underpinning any good teaching and learning is the development of a suitable curriculum designed to achieve relevant learning outcomes. Our study sought to identify key knowledge, skills and attitudes both practitioners and academics agree are necessary for SHRM graduates to achieve. The Delphi technique allowed us to engage with a large number of experts and obtain their views in order to inform our curriculum design. Additionally, it ensured no one view dominated, as can be the case with focus groups, and it enabled us to include experts who were geographically widespread.

With the use of online technology (the Qualtrics platform in our study) developing, distributing and collating the surveys was done in a timely manner. We found timeliness, regular feedback and genuine participant interest were key to the success of our study. These factors can easily be replicated in other studies across a range of disciplines, wherever expert opinion and/or consensus is sought, whether to further curriculum development or in a myriad of other research settings and disciplines.

In our circumstances there was sufficient material in the existing literature to allow us to modify the usual Delphi first 'brainstorming' round and instead propose ideas for agreement/disagreement from the literature. By including the option for participants to add to our list, we effectively combined the usual first two rounds and expedited a successful Delphi process. Over a relatively short period (approximately four weeks) we were able to gain consensus on a substantial range of curriculum ideas, allowing us to focus our efforts and time on developing learning outcomes and designing suitable teaching methods and strategies. Whilst sound preparation and organisation were needed to ensure a good result, the process was able to be comfortably managed within a single semester timeframe.

The curriculum can now be confidently delivered and marketed as contemporary and industry driven, meaning our graduates will enter the workforce better equipped to undertake their roles than previously. Inclusion of both academic and professional experts means that in our attempts to make our curriculum industry appropriate we have not lost those key theoretical components that ensure students are also able to pursue their academic interests and move on to higher degree research qualifications.

Whilst our area of interest was SHRM, the Delphi technique is versatile and could easily be adapted for use in developing curricula in other disciplines. Our literature review suggests it has already been used in the medical and nursing disciplines where there is also a need to provide students with sound theoretical knowledge to enable them to select appropriate strategies and interventions eg patient treatment plans.

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