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The Delphi Study in Media Literacy (MEDLIT) Erasmus+ Project: Lessons Learnt

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Abstract

The procedure and practice in conducting a study on media literacy education intervention need to be clarified to guide quality research. In recent years, only limited Delphi studies have been conducted in the Malaysian context. Despite recognizing the influence of socio-cultural settings on the conduct of any research, empirical literature on the best and most suitable means to conduct Delphi studies within the Malaysian socio-cultural context has not grown in proportion to the evolution of Delphi method application in local social-science studies. This article establishes methodological considerations in employing the Delphi method by investigating issues relating to data source, instrument, data collection procedures and management in the implementation in designing and conducting a successful Delphi study in the Malaysian socio-cultural context. The reflection of Delphi method in identifying media literacy knowledge that is deemed to be important for inclusion in an introductory media literacy Massive Open Online Course (MOOC) will be explored. This study demonstrates a novel and inclusive strategy that might be used in Southeast Asian nations. Our study suggested appropriate strategies in order to develop and carry out more feasible Delphi studies. New researchers should take into consideration the numerous issues and difficulties identified in this study. The main contribution of this study is a set of dependable and useful guidelines that may be used to design and carry out future Delphi studies that include the study's reasoning, justification of its advantages, the official logo of the institutions the researchers are affiliated with, and authorization from the funding organisations, which may add weightage to the study's significance.

Keywords: *Delphi method, Massive Open Online Course (MOOC), media literacy, media competency, curriculum development.*

INTRODUCTION

A Delphi study is an important method commonly used in collecting consensus opinions pertaining to certain issues or understanding. The Delphi method was first introduced in the 1950's and grew in acceptance and popularity to be widely applied in a spectrum of study fields, including social science (Linstone, Turoff & Helmer 2002). It continues to contribute to the social sciences fields within various scopes such as education (Wu, Huang, Kao, Lue &

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Chen, 2018; Popov, Jiang & So, 2020; Rossouw, Hacker, & de Vries, 2011; Thach & Murphy, 1995; Zawacki-Richter, 2009; Watson, 2008), communication (Beaumont, 2003; Garcia-Jimenez, Rodrigo-Alsina & Pineda, 2017; Linke & Zerfass, 2012), organizational setting (Cheng & King, 2017; Linke & Zerfass, 2012), as well as information and communication technology (Fong, Ch'ng & Por, 2013; Gajendran & Brewer, 2007; Keller & Heiko, 2014; Ju & Jin, 2013)

The importance of research-based curriculum has always been widely recognized. A good education intervention is one that is based on substantiated research and informed by sound research methods. In conducting research such as a Delphi study, the design and implementation are often influenced by socio-cultural settings in which the study took place. Earlier studies have shown that culture has a profound influence on many facets of research design and execution (Erstad, 2010; Wu & Wang, 2011). For example, the scale format influences respondents' reactions and people's responses to Likert items are influenced by their response style (Harzing, 2006; Lange, Kopkow, Lützner, Günther, Gravius, Scharf, Stöve, Wagner, & Schmitt, 2020; Toma, & Picioreanu, 2016). People who live in high masculinity beliefs and experience high-powered distances in their society were more likely to choose extreme response choices when answering questionnaires (Johnson, Kulesa, Cho & Shavitt, 2005).

The impact of socio-cultural settings on any research method has not been fully emphasized. Empirical literature on good practices in conducting a Delphi study in the Malaysian environment is still yet to be sufficiently developed. While the application of the Delphi method in social science studies has grown, there is a dearth of literature discussing its application in communication and media studies in Malaysia (Sabariah et al., 2019). Drawing on our experiences gained when conducting a Delphi study in the Erasmus+ media literacy project, this current study intends to provide insights into theoretical and practical considerations that interplay when designing and implementing a Delphi study by elucidating its associated challenges and practices across our Malaysian socio-cultural context. We intend to highlight principles and critical factors in designing and employing successful Delphi studies in the Malaysian socio-cultural perspective.

The project entitled "Media Literacy Studies: Media Literacy as Media Competence Program for Social Change" is an Erasmus+ capacity-building project, MEDLIT, was carried out by a consortium of nine universities, co-funded through a research grant from the European Commission. This study aims to contribute to the field by exploring the Delphi method in identifying which knowledge is considered as important to be included as key facets in an introductory media literacy MOOC for youths. The purpose of this article is to outline and discuss the researchers' experiences in designing and conducting the Delphi method in which findings of the study were used as inputs in developing a massive online course on media literacy for the public.

Considering the fact that media literacy knowledge is vital for individuals to be active and proactive in a democratic society especially in the digital age (Carlsson, 2019), there is a need for universities to develop and offer introductory media literacy courses through a massive open online platform (MOOC) so that more people would have the ability to meaningfully navigate media contents in today's information and media rich environment. This is especially so, amidst the COVID-19 pandemic as media and information literacy skills is pivotal and determines "the extent to which the public engages in preventive behaviours during a pandemic" (Li X & Liu Q, 2020) and can significantly help reduce the spread of disinformation and misinformation of COVID-19 (Igbinovia, Okuonghae & Adebayo, 2021).

By making media literacy MOOC available to the public, universities are not only extending knowledge to the general public, but at the same time is well poised to strengthen its participatory community development role in providing lifelong learning (Bakeer & Wynn, 2020; Fini, 2009; Marfil-Carmona & Chacon, 2017; Viswanathan, 2012), especially in promoting media literacy to the society.

This introduction section is followed by the second section, which reviews existing literature related to media literacy for curriculum development, a general overview of media literacy education and studies on media literacy within the Malaysian context. Next, the third section discusses the elements of the Delphi method. The fourth section explains the design and implementation of a Delphi study in Malaysia by taking the media literacy curriculum development as an example. Next, the fifth section vindicates the methodological considerations and problems faced in conducting a Delphi study. Finally, the last section concludes this study by justifying research implications, limitations as well as recommending future work directions.

Media Literacy and Technology Education

In the digital era, mass media, especially new media, is increasingly becoming the core reference to any society and demands updated awareness on media-specific structures, social practices and media-affiliated characters in practically everything in any modern and IT savvy community (Dutta, 2018). Before the emergence of internet and new media, the concept of media literacy was only focussing on print and electronic media, but with the evolvement of internet and other new media, the media literacy concept has been enriched (De Abreu, Mihailidis, Lee, Melki, & McDougall, 2017; Livingstone, 2004).

The media literacy term has changed accordingly based on the shift and development of technology advancement. Whilst the changing medium brought various related terms of literacy, such as computer literacy, Internet literacy, audiovisual media literacy, and digital literacy, etc (Livingstone, 2004). However, when analysing how the medium matters, various mediums can be understood as the message. In this context, it must be understood not only in technological terms, but also in cultural and political terms (Livingstone, 2004). In contrast, Dufva and Dufva (2019) focuses on how developments in our increasingly technologically mediated environment have been combined with education needs understanding.

Although there are several viewpoints in defining media literacy, a commonly accepted definition refers to the ability to critically and responsibly access, analyze, evaluate and create mediated communication (e.g., Livingstone, 2008; Martens, 2010; Potter, 2019). This definition implies that being media literate involves more than mere accessibility and ability to use the social media platforms for communicative purposes, but it entails meaningful and responsible use of the media with some degree of empowerment. In fact, online information enables authorization of individuals, despite differences in formal education levels. Even people with lower scholastic credentials can feel politically empowered via the information that they receive from the Internet, compared to more educated counterparts (Sasaki, 2016).

New technology and cultural forms necessitate innovative skills and competences, and education must expand the concept of literacy and establish new curricula and pedagogies if it is to be relevant to the issues and challenges of modern society (Kellner, 2000). In this case, media literacy education needs to be developed as we are now more involved in online media activities. Many have argued that media literacy education is focused

on helping media users develop an informed and critical understanding that will enable them to be more captious in comprehending and interpreting media content wisely and objectively (Brown, 2015).

Media literacy provides means for media users to attain empowerment in the society which contributes to the development of social and cultural capital of individuals and society (Bulger & Davison, 2018; Hobbs, 2011). Recently, in 2022, social media literacy has played a significant role in society (Festl, 2021; Gordon, Rodgers, Slater, McLean, Jarman, & Paxton, 2020; McLean, Wertheim, Masters, & Paxton, 2017; Syam and Nurrahmi, 2020), and it needs to be taken into account as the current conceptions of media literacy may not be sufficient to prevent negative consequences of social media (Cho, Cannon, Lopez, & Li, 2022).

Although Malaysian citizens are now quite adequately interconnected digitally, media literacy education is not well developed. Baboo (2001) pointed out that media literacy education in the country remains marginal, and this seems to hold true to date. At the time of implementing the Erasmus+ media literacy project, we discovered a gap in literature concerning media literacy education. Although universities offer courses that expose students to the basics of media industry operations, media theories and criticisms, as well as skills in media use and production, the reach is unfortunately limited or narrowly confined mostly to students of journalism and mass communication programs only. There are no specific media literacy courses available for non-communication or non-journalism students or the general public (Sabariah, 2020). This indicates that existing university curricula do not provide a wider access to introductory media literacy courses.

Media Literacy Studies in Malaysia

As with media literacy education, media literacy studies in Malaysia are still rather underdeveloped. Baboo (2001) commented that there is no clear and explicit agenda on media literacy research. Presently, very few studies have explored media literacy within the Malaysian context, either by universities or government agencies. Even if there is a media literacy research conducted in Malaysia, it is unlikely to focus on the importance of media literacy in education, but more on other aspects, centering on the role of media industry in cultivating media literacy in society (Md Azalanshah & Mohd Nazri, 2018), and the effects of media literacy on cervical cancer preventive behavior (Shinta, Mohamad Salleh & Ali, 2019), disinformation and misinformation (Neo, 2021) as well as in environmental issues (Prasad & Balraj, 2013).

Whilst there is limited study on media literacy, the government has developed several approaches to heighten the awareness of media literacy even to the extent of developing a website “sebenarnya.my” solely to check the accuracy of online information and to quash dissemination of detrimental fake news. This shows that the government is putting considerable emphasis towards strengthening media literacy among our youths. In addition, two fact checking organizations were established recently - Mycheck and Faq Check Lab. The strategies and approaches that youth applied to access, evaluate, or engage with news can be considered as an indication of news literacy, in which young people negotiate platform structures and norms learned in media education (Swart, 2021).

Past local studies related to media literacy, either quantitative and/or qualitative, had mainly targeted to uncover users’ media experiences (Karupiah, 2015; Ling, Ali & Mustaffa, 2019; Zalma, Safiah, & Ajau, 2013). Findings from those studies implicating media literacy were discussed intensely. A review of the relevant studies revealed that none of them,

including communication and media studies, had employed the Delphi method. Additionally, no study has ever been done to identify the media literacy knowledge considered important for inclusion into a curriculum for general media literacy courses intended for the public and university students. Therefore, this novel study aims to determine media knowledge elements for inclusion in an introductory level MOOC using the Delphi method. The experiences in conducting such a study potentially adds to the literature by elucidating possible critical and success factors in designing and implementing a Delphi study in light of innate socio-cultural influences that intertwine with this particular type of research.

Elements of the Delphi Method

The Delphi study is well suited as a method for building consensus by using a set of questionnaires generated by multiple iterations to gather data from a panel of experts (Hsu & Sandford, 2007; Sanz, Carrillo de Albornoz, Martín, Needleman, & Tonetti, 2023; Shelton, Haynes & Creghan, 2018). Delphi studies are rooted in opinion aggregations, hence it is ineffective in researching an individual's psychosocial circumstances. Although not recommended for research into complexities and perceptions of individual behaviours, Delphi can be used to describe the characteristics of complex areas for positivist analysis (Fink-Hafner, Dagen, Doušak, Novak, & Hafner-Fink 2019).

While the Delphi method is flexible, researchers still need to take into account many other design considerations to employ it successfully (Fink-Hafner et. al., 2019). Modified Delphi designs normally do not confer an expert panel to generate answers to the first-round iteration, but seek agreement to the developed answers based on the literature review (Avella, 2016). If a Delphi study involves at least two iterations, it becomes a time-consuming method; and this is particularly the case when the questionnaire contains a large number of statements and involves diverse categories of “experts”. When there is a large number of statements in the questionnaire, respondents will have to devote a larger amount of time to complete the questionnaire properly (Williams & Webb, 1994; Avella, 2016).

Advocates of the Delphi method have stressed on adhering to the requirements of the design. It has four key features: (a) multiple iterations (Hasson, Keeney, & McKenna, 2000; Egfjord, & Sund, 2020; Skinner, Nelson, & Chin, & Land, 2015), (b) anonymity of participants (Egfjor et al., 2020; Shariff, 2015), (c) controlled feedback comprising of a well-organized summary of the previous iteration intentionally distributed to the participants, allowing each respondent an opportunity to produce additional insights (Boulkedid, Abdoul, Loustau, Sibony, & Sibony, 2011; Rüetschi & Olarte Salazar; 2019), and (d) statistical group response (Rowe & Wright, 1999; Skulmoski, Hartman & Krahn, 2007). Likewise, Avella (2016) has asserted that the major criteria for designing a Delphi study involve (a) choice of design approach (conventional or modified), (b) selection of panel member (definition of “expert” and participant time, interest and linguistic facility), (c) size of panel member (number and membership of participating groups), and (d) maintain participant confidentiality along with provision of feedback to the panel.

Choosing the right respondents is the most essential step in the entire process because it directly relates to the quality of the results generated. Delphi respondents should be “experts” within the specialized areas of knowledge related to the target issues on hand. There are four requirements to qualify as “an expert”, namely (a) knowledge and experience with the issues under investigation, (b) capacity and willingness to participate, (c) sufficient time to participate, and (d) effective communication skills (Skulmoski, Hartman & Krahn,

2007). Hsu and Sandford (2007) have highlighted the following issues in conducting a Delphi study: (a) potential exists for low response rates and striving to maintain robust feedback can be a challenge, (b) the necessity of taking large blocks of time to successively complete a Delphi process, and (c) probability of investigators to shape and mold opinions. They also noted that some respondents may have greater in-depth knowledge of certain topics as opposed to others. Some are more familiar and more at ease on certain issues.

Therefore, the outcomes of a Delphi study could be the result of identifying a series of general statements rather than an in-depth exposition of any particular topic. Having disclosed the key considerations in designing a Delphi method, the subsequent section discusses the learning experience in executing a modified Delphi study, as demonstrated through the Erasmus+ project. The ensuing section focuses on the lessons learnt in designing and executing a Delphi study within the Malaysian socio-cultural context.

Designing and Implementing a Delphi Study

The Delphi method is popularly used in educational research and curricular designs (Batool, Rehman, & Sulehri, 2022; Green, 2014; Sitlington & Coetzer, 2015; Spivey, 1971; Wallner, Alpen, Adolf & Zita, 2017). To achieve the project goal, a 2-wave Delphi method was designed and carried out. This MEDLIT project, led by the Zeppelin University team, involved nine partner institutions of the project consortium from six countries which also included Thailand, Malaysia, Vietnam, Austria and the Netherlands. Initially, it was intended to be a comparative study; but upon further discussions among the participating research centres, it was unanimously agreed that it was impossible to have just one standardized questionnaire because of the uniqueness and divergence of media systems, traditions, norms and culture in each partner country. The Delphi study employed a stakeholder approach with the objectives of (a) to collect ideas from vested stakeholders on what would be necessary and what should be done to enhance media literacy, and (b) to involve influential actors to secure their support in promoting the eventual outcome, which is the media literacy MOOC (Wallner, Alpen & Adolf & Zita, 2017).

The Malaysian researchers applied a pragmatic approach in the 2nd wave. In a typical Delphi study, the structure of the questions remains unchanged in each round. However, we deviated from conventional practice and instead of repeating the questions in the same structure, we modified the structure without losing the original meaning and intention of the questions.

The 2nd wave's questionnaire provided participants with the mean of how the statements were ranked in the first round. In the 2nd wave, we presented the list of knowledge items according to the rank order of importance, based on the analysis of the 1st wave data. The primary purpose of the 2nd wave is to share and to extricate what respondents think about the findings derived from the 1st wave. According to Hirschhorn (2019), this will allow participants to "reflect on this feedback and reconsider their opinions when responding to subsequent questionnaires".

Participants were asked whether they agree with the ranking order of the items (refer to Table 1). On top of that, they were also advised that they are free to recommend changes to the ranking and to provide some degree of explanation for the changes. In the 2nd wave, respondents were also asked to rate the extent to which the concepts/themes identified in the 1st wave are important for inclusion in media literacy education on a 6-point scale.

The design of the Delphi study was jointly developed by eleven researchers from two different universities, (a) Universiti Putra Malaysia (UPM) (including the first author as she was working at UPM during the phase of data collection), and (b) University Malaysia Kelantan (UMK). The 1st wave involved 75 stakeholders, but the number decreased to 44 in the 2nd wave. Data was collected through face-to-face interview sessions by the research team members with all respondents. Altogether, there were seven categories of respondents: educator, news/media organization, government agency, politician, non-government organization (NGO), professional association and others.

Methodological Considerations and Problems Encountered

a) Identifying and Selecting Respondents

The first area of consideration is identifying the "experts" to be interviewed. Who would qualify to be considered eligible and the right "expert" is of critical importance in conducting a Delphi study (Davidson, 2013; Hasson et. al., 2000; Hasson & Keeney, 2011; Hsu & Sandford, 2007; Lincoln & Guba, 1985; Sourani, & Sohail, 2015). Delphi respondents should consist of individuals with suitable knowledge in the field that is being examined; he/she needs to have motivation to engage throughout the inquiry process, and be able to articulate judgement. In the Erasmus+ MEDLIT media literacy project, the researchers adopt a stakeholder approach and use the following criteria in selecting potential respondents: possess knowledge connected to their profession, hold high managerial or social positions, and at least have five years of working experience in the related field. Based on those pre-set criteria, this study painstakingly identified potential stakeholders across several organization categories and established a shortlist of potential stakeholders to contact. The target was stakeholders from (a) institutions of higher learning, (b) news/media organizations, (c) government agencies, (d) non-government agencies, (e) professional associations, (f) telecommunication and advertising companies, and (g) others which include politicians, motivators, human resource managers and business people. The target was to get at least three participants under each category for the 1st wave. While Okoli (2004) suggested to enlist between ten to eighteen experts, Linstone and Turoff (1975) and Moore (1987) explained that panel usually comprises of 15 to 30 individuals from the same discipline, or 5 to 10 participants per category from numerous professional groups, most literature commented that there is no rule of thumb in determining sample size for a Delphi study; as studies were carried out with variable panel sizes (Akins, Tolson & Cole, 2005; De Villiers, De Villiers, & Kent, 2005; Shariff, 2015; Weidman, Miller, Christofferson, & Newitt, 2011; Williams & Webb, 1994).

While the process seems rather straightforward, executing it was not that easy. The researchers encountered a couple of problems in selecting and accessing participants. To establish and apply the preset rigid criteria in selecting the stakeholders were indeed quite intriguing obstacles. There were cases in which the identified potential participants did not fulfill all the established criteria. To deal with the problem, the researchers decided to lax on the minimum of five years of experience, arguing it is not a major criterion. The emphasis was to get diverse points of view; hence the study identified a broad range of stakeholders to interview on the premise that the diversity in respondents' perspectives would broaden the number and types of information that the samples would elucidate. From the identified problems, it becomes clear that a comprehensible, practical and attainable list of stakeholders to be involved in a Delphi needs to be finalized early in the research design phase. This should act as a key principle in designing any Delphi study.

Letters of invitation requesting for study participation were emailed to potential respondents and were actively followed up with repeated phone calls. Contacting and getting consent from the potential participants was a laborious time-consuming process. Quite a number of emails bounced back and many phone calls went unanswered even after repeated attempts. A few of the potential respondents declined to be interviewed because they were either unavailable or too busy to commit their time. That was particularly the case for media organizations and government agencies. A handful others had consented to be interviewed, yet when interview sessions were scheduled, they were unable to materialize because the earmarked participants were unfortunately preoccupied with their work commitment at the scheduled time. Any hope of getting stakeholders who hold top positions in their organizations often fizzled out due to their busy work schedule. Even though interviewing the real experts for input is theoretically preferred, in practice, these real experts were largely elusive to be reached or engaged as respondents in the study. Therefore, it was imperative to create a realistic or achievable list of potential participants to make up the difference between reachable versus difficult to reach experts from the onset of the Delphi study.

Another critical factor is readiness to inform participants upfront of what is expected from them before, during and after the interview/survey as part of the recruitment process. This can reduce attrition in subsequent waves of iteration. Respondents are more willing to get involved in a Delphi inquiry if they are confident that they are to be affected directly and/or profoundly by the outcomes of the study. During personal meetings with respondents, we need to ensure that they can focus and stay focused on the questionnaire/interview, feel at ease and satisfied with the whole process. Parallel to that, respondents' motivation is the key to the successful implementation of a Delphi study. Thus, researchers need to play proactive roles to strive towards achieving a high response rate as well as unearthing quality responses.

Researchers need to think outside the box and be creative and visionary in identifying and employing unique engagement strategies to solicit, tempt and secure the participation of the respondents. In fact, this legitimation strategy can be further enhanced by the inclusion of more institutions as research partners, including relevant authorities, agencies or ministries, as this will show that the study commands wide support from various vested parties.

b) Sample Size

Sample size is another challenging consideration. There is no hard and fast rule; it depends on the nature and type of data to be collected. In a classical Delphi study, normally the first round of iteration involves a small number of participants who have to respond to open-ended questions (Delbecq, Van de Ven, & Gustafson, 1975). In this modified Delphi study, instead of asking the respondents questions in which the responses were used to generate media literacy knowledge items, they were asked to rank the importance of a particular knowledge item that the research group had developed earlier, based on discussions and literature. This method is known as Ranking-type Delphi that aims to find out the comparative importance of certain issues within a group consensus (Paré, Cameron, Poba-Nzaou & Templier, 2013). Hence, instead of having a small panel of experts, the study went on to secure a sample size that would be adequate to capture variance in the item ranking. If the sample size is too small or the range of stakeholder category is too narrow, these samples may not be deemed to have produced a fair and representative pool of decisions regarding

the targeted issue. Conversely, if the sample size is too huge, one of the inherent drawbacks of the Delphi approach is low response levels and a large block of time requirement for both respondents and researchers (Buck, Gross Hakim & Weinblatt, 1993; Hasson et al., 2000; Paré, Cameron, Poba-Nzaou, & Templier, 2013). Hasson et. al. (2000) also asserted that the number of participants that could be retained for interviews in the subsequent iterations is an important provision to reflect on. The range of "expert" categories to be involved also influences sample size. A Delphi panel should have more than 10 experts in order to reach reliable findings (Vergouw, Heymans, De Vet, Van Der Windt & Van Der Horst, 2011).

The desired sample size for the 1st wave was eighty stakeholders, with an assumption that there could be significant dropouts coming into the 2nd wave. In the 1st wave, seventy-five stakeholders were eventually interviewed although the number was reduced to forty-four in the 2nd wave later on. Thirty five out of forty-four stakeholders participated in both waves, while four respondents were included as substitutes for certain categories. Five other respondents were added to represent the category of students which was not considered in the 1st wave. Within the limited time frame that the researchers had, this study managed to get fifty six percent of the combined targeted respondents involved in the 1st and 2nd waves. Getting the same participants for the 2nd wave was not an easy task. Although some had expressed willingness to be interviewed in the 2nd wave during their initial interview session, they became unavailable due to pressing work schedules. As this study was not to make generalizations but to identify the important facets of media literacy knowledge for a curriculum development, the researchers believe that the sample size obtained is adequate and representative of the relevant stakeholder groups. If the study was to have more than two rounds of iteration, then the sample size required in the 1st round would have to be larger, assuming a significant dropout rate in the second or other possible subsequent rounds.

c) Sampling Design and Instruments

The design of the data collection instrument is definitely an essential consideration. There was a lengthy discussion on the types of questions for this Delphi study, close-ended or open-ended, as well as the scale format for the knowledge items. Both question types have their innate strengths and weaknesses. Eventually, we settled to have both, closed as well as open-ended ones because the former would provide more and richer information that could strengthen quantitative data. The research team deliberated in a series of meetings to generate the questions.

For the closed-ended items, first we created statements which contain indicators or attributes of a media literate person before modifying them to statements which ask respondents to rate the importance of the statements that they believe are significant to be included as the knowledge in Media Literacy MOOC. The changes from indicators to a rated statement can be seen from this example: The statement, "People should be able to think critically to evaluate objectivity and biases in media contents" was later re-framed to "Understanding how to critically think about media biases, manipulation and propaganda for evaluating media content".

Pursuant to that, the types and total number of questions in the questionnaire were also important concerns. We did not want the Delphi study questionnaire to be too elaborate or too exhaustive. In the early development of closed-ended questionnaire items, the researchers had generated sixty statements but subsequently reduced it to only thirty-nine so that it would not consume too much of the respondents' time to respond. In addition to

the closed-ended statements, a total of ten open-ended questions were also incorporated in the 1st wave Delphi. The questionnaire was pre tested and refined based on results from the pretest. For the 1st wave, the items were grouped in four aspects of media literacy knowledge, (a) market structure/performance facet, (b) media conduct/practice facet, (c) epistemic facet, and (d) normative understanding facet. The items were listed in a random order so as to avoid biases when selecting the answers. In general, respondents took between 25-50 minutes to respond to the open-ended questions and about 15-20 minutes to respond to the closed-ended ones.

One important issue debated among scholars is creating closed-ended Likert-type details of media literacy knowledge items. It is widely known that scale format and response style influence respondents' responses (Harzing, 2006). Likert items and their corresponding response sets are subject to response distortions (Lange et al., 2020). A true 5-point Likert-type item should have an "undecided/neutral" option (Joshi et al., 2015). We faced a compounding dilemma in deciding whether to add the "undecided/neutral" or "somewhat agree" mid-point label on a 5-point Likert scale (Chyung, Roberts, Swanson, & Hankinson, 2017; Robertson, Kremer, Aisbett, Tran & Cerin, 2017; Tsang, 2012). A 5-point Likert item would remove ambiguity as to what the midpoint category means. A full-label format scale would result in high reliability of the scale. Additionally, the increase in reliability may be due to response-style bias (Harzing, 2006) which is defined as a respondent's tendency to respond systematically to Likert items regardless of the item content (Baumgartner & Steenkamp, 2001). Among the types of response styles are (a) acquiescence or dis acquiescence, meaning the tendency to agree or disagree with an item regardless of the content, and (b) extreme versus middle response styles, referring to the tendency to use extreme or middle response categories on Likert scale items (Harzing, 2006). The pertinent dilemma is which mid-point label works better in our Malaysian culture?

Raaijmakers, Van Hoof, Hart, Verbgost and Volleberge (2000) pointed out that earlier studies have indicated that respondents generally take the mid-point category as "neutral/undecided", without heeding the actual descriptions of the mid-point response category. On the other hand, having that "undecided/neutral" mid-point provides an easy way out for uncommitted respondents or a polite way for respondents to express disagreement. Conversely, having a "somewhat agree" mid-point would render a scale skewed towards the positive side. In terms of consensus, it will be achieved if 80% or greater responses rating the items as critical important, as stated by Haworth, Montgomery, and Schaub (2023), the consensus will be reach if 80% responses rate are scale, 7, 8 or 9 form a 9-point likert.

Lee, Jones, Mineyama and Zhang (2002) found that Japanese and Chinese respondents were more likely to choose the midpoint of a Likert scale item as opposed to Americans, but only for items involving expressions of feelings consistent to their assumption that individuals in collectivistic cultures would prefer to avoid extreme responses and thereby, choose the perceivably safe middle ground. They argued that collectivists would prefer a moderate response so as to be in sync with the group. Harzing (2006) suggested that emphasis on harmony, confrontation avoidance and conformity behaviour among collectivistic individuals would lead to either middle or slightly positive responses. Malaysians are generally collectivists who are quite well known to be reluctant to either disagree directly or openly, or to say no. They have a greater likelihood to agree to a Likert scale item, hence an issue of a stronger acquiescence response bias. Considering the above-mentioned issues,

the researchers framed all the knowledge items in a manner that fit a 6-point scale to tacitly force respondents to make a judgement on the importance of the items listed. The response option scale ranges from (1) not important at all, (2) not important, (3) somewhat not important, (4) somewhat important, (5) important, and (6) very important for media literacy education.

In a typical Delphi study, the structure of the questions remains unchanged in each round. We deviated from conventional practice by taking a more pragmatic approach. Instead of repeating the questions in the same structure, we modified the structure without losing the original meaning and intention of the questions. In the 2nd wave, we presented the list of knowledge items according to the rank order of importance, based on the analysis of the 1st wave data. The primary purpose of the 2nd wave is to share and to extricate what respondents think about the findings derived from the 1st wave. They were asked whether they agree with the ranking order of the items. On top of that, they were also advised that they are free to recommend changes to the ranking and to provide some degree of explanation for the changes (refer Figure 1(b)). In the 2nd wave, respondents were also asked to rate the extent to which the concepts/themes identified in the 1st wave are important for inclusion in media literacy education on a 6-point scale.

Despite the modification (deviation from the typical Delphi method), this study achieved its goal to primarily identify media literacy knowledge that are perceived to be important in designing a basic media literacy course curriculum for the general public and the younger generation, particularly university students. The innovation turned out to be effective because it satisfies the study objective. Nevertheless, we discovered and learnt that the quality of qualitative data collected depended on how knowledgeable the respondents were on the subject of media culture and systems. A number of participants, namely those working in media or related industries, provided rich qualitative data.

The final critical factor is to formulate distinct, concise, and unambiguous questions, along with crystal clear instructions for both respondents and researchers. Past personal experiences and common sense understandably dictate that aesthetically appealing and seemingly user-friendly questionnaires will easily and positively affect participants' decisions to voluntarily commit as respondents and to openly provide quality data.

d) Data Collection

There are different modes in which a Delphi questionnaire can be administered, either online, face-to-face, in groups or one-to-one. It is widely known that in Malaysia's society, getting willing respondents for surveys is never easy, be it in quantitative or qualitative research. Many are not readily receptive to participate for various intrinsic reasons. Given the fact that the rate of returned online surveys is usually very low, the researchers opted to administer the Delphi questionnaire via the face-to-face method. There are certain advantages in doing so but despite having better chances of getting more respondents, the researchers encountered a number of problems in getting respondents to participate. The selected prospective respondents were contacted in a decent manner either by telephone, WhatsApp or even through personal meetings; whichever was more appropriate.

Appointments for face-to-face interviews were set up with those who had consented to participate. It took time and hard work getting access and participation of target respondents as most of them were busy due to their jobs and work commitments. Although one-to-one meetings with the respondents require a longer time to collect data, we still opted

in favour of it to enable a high rate of participation and return of questionnaires. Meeting respondents in groups is out of the question because it was too troublesome to gather them. Furthermore, there are drawbacks in administering questionnaires via group settings. Having a convincing invitation letter is absolutely necessary, though it does not guarantee the involvement of the participants. We later learnt that written invitations which were sent out needed personal touch too. Immediate follow-up of the email notifications is imperative to improve the probability of getting consent and cooperation from the prospective respondents. To ensure uniformity in data collection procedure, instructions on how to execute the interview, along with instructions on how to administer the questionnaire, were prepared. Every researcher was briefed on how best to carry out the interviews.

In this current study, we decided to do just two rounds of data collection due to time constraints. The instrument was designed in a way that enabled the researchers to get the needed data within just two waves of data collection. We discovered that the questionnaire design had worked adequately without any problems in administering the instrument. We believe that we have discovered a unique or alternative way to design an instrument that could measure the importance of ranking knowledge items for the purpose of prioritizing knowledge in designing a curriculum. This innovative method would help resolve the need to conduct multiple rounds of data collection for such purposes. The ranking-type Delphi technique is an effective approach for achieving consensus (Paré, Cameron, Poba-Nzaou, & Templier, 2013).

Our experience in implementing the 2nd wave of the study points to the need for researchers to be more alert, attentive and sensitive to timing matters when collecting data. We learnt that collecting data at the end of the year was somewhat inappropriate because people would have either committed themselves to go on holidays or they are even busier to round up necessary work issues as the year end. In the case of this study, quite a number of the intended stakeholders could not be reached or were simply unavailable for interviews.

CONCLUSION

This paper establishes a methodological consideration in employing the Delphi method by addressing issues relating to data source, instrument, data collection procedures and management in the implementation of a Delphi study. The study implemented Delphi study to design and structure questionnaire items in which the objective is to get consensus on experts' feedback and opinions on the important topics for a media literacy introductory course for the young people, particularly those in universities. This MEDLIT project provides fresh evidence for a relevant and applicable consensus development method for a justified decision on the curriculum development of this media literacy introductory course. It also expands the Delphi study within the Malaysian context by outlining the fundamental perspectives on how a proper Delphi study should be conducted in a non-speculative way, as this method has been rarely conducted in Malaysia.

The major contribution of this study is the reliable and practical guidelines that can be adopted or adapted in the design and execution of future Delphi studies. A solid and compelling study comprising the rationale of the study, justification of the benefits of the study, the official logo of the institutions that the researchers belong to, and accreditation of the funding agencies, can provide additional weightage to enhance the significance of the study.

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The various problems and challenges outlined in this study give relevance to new researchers in implementing and conducting more effective/feasible Delphi studies in the Malaysian sociocultural setting. Before adopting this method, the underlying process of the Delphi techniques needs to be fully understood. The recommendations on identifying and selecting the respondents, sample size, sampling design and instruments, and the data collection procedures, are among the useful guidelines in handling a Delphi study. Although this study is based on data collection from experts in Malaysia, the recommendations are also applicable to other neighboring Asian countries as their sociocultural backgrounds are quite similar to that in Malaysia.

As the emphasis of this study was on the Delphi method itself, future studies are needed to assess the extent that these findings can be translated and applied to other countries. Even though the guidelines to approach the experts, questionnaire constructions, and benefits of administrative face-to-face interview for Delphi techniques are being discussed in this study, there are still some aspects that have not been agreed upon, especially the construction of the qualitative questions. To address this, it is important to achieve further agreement among the experts, and to study the effectiveness of the qualitative questions (complicated or uncomplicated) posed to them. Hence, future research should focus on the suitability of the contents of the qualitative section, especially the qualitative questions in the Malaysian context.

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