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Content Validation of an Islamic Leadership Model for Preschool Children using the Nominal Group Technique

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ABSTRACT

This article discusses the Nominal Group Technique (NGT) as an alternative strategy for assessing the content validity of a leadership model for preschool children. Nominal group technique, established collegial discussion among a group of participants to agree on essential leadership elements appropriate for inclusion in the model. The strengths and limitations of the technique are discussed The findings of the study had identified a total of 34 elements of ethics and values related to leadership competencies, at the initial stage of the model development. Further group discussion resulted with only 30 elements of ethics and values suitable to be considered for the next development phase of the model. This study establishes the appropriateness of NGT procedures to validate the content of the Islamic Leadership Model for preschool children and greater utilization of the technique is encouraged especially in research studies involving design and developmental research methodology.

Keywords: Nominal Group Technique, Leadership, Preschool Children.

Introduction

Leadership in young children is a component of social interaction and is necessary for children's social development (Mullen, Kydd, Fleming & McMillan, 2019; Liang, 2019; Nesloney, 2020). In the early childhood classroom, children's relationships with each other and with adults, matter and are at the heart of the theoretical and curricular foundations in education (Schneider, 2016; Ridgway, Quinones & Liang Li, 2020). A growing body of developmental research supports the connections of positive relationships in early childhood in healthy brain development, social growth, and academic success in long term studies (Stobaugh, 2019; Bergen, Li, DiCarlo & Burnett, 2020). Most research on leadership focuses on workplace leadership and ignore the importance of understanding leadership qualities among children (Rodd, 2013). This study is part of an effort to design, develop and evaluate the validity of an Islamic Leadership Model for preschool children. It has been implemented in three phases: Phase 1 (need analysis), Phase 2 (the design and development of the model) and Phase 3 (evaluation of the model). This paper presents the methodology used in Phase 3 (evaluation phase) of the research, which was aimed to establish the content validity of the model using the Nominal group technique. The Nominal Group Technique (NGT) is commonly referred to as consensus methods (Yahaya, 2020). It aims to achieve a general agreement or convergence of opinion around a particular topic. Consensus methods are used in research that is directed at problem-solving, idea-generation, or determining priorities (Mullan, 2021). The purpose of this paper is to present the application of this technique for the generation of ideas and decision making in a controlled small group, where research-based evidence about children leadership

competencies is absent or inconclusive (Manira, Hanson, Gutman & Tong, 2019). The systematic process of NGT allows a group consensus to achieve based on individual responses in a face to face environment (McMillan, King & Tully, 2016). This survey technique is increasingly being used for the development of consensus and agreement among a group of participants related to the development of guidelines, standard, framework or model in the field of education (Mullen, Kydd, Fleming & McMillan, 2019)

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In this study, the Nominal Group Technique was utilised to answer the following research questions:
1. What are the experts' agreements on the list of components of values, characteristics and skills of the Islamic Leadership model for Little Caliphs Kindergarten children?
2. What are the experts' agreements on the classification of the Islamic Leadership model for Little Caliphs Kindergarten children?
3. What are the experts' agreements on the suitability of the proposed Islamic Leadership model for Little Caliphs Kindergarten children?

Literature Review

The NGT is an approach that was first described in the 1960s as a procedure to facilitate effective group decision-making in social and psychological research (Delbecq and van de Ven 1971). Since that time it has been applied in a wide range of fields, including education, health, social service, industry, and government organizations. The purpose of the NGT is to generate information in response to an issue that can then be prioritized through group discussion. Participants involved in the NGT take part in a highly structured face-to-face meeting, usually lasting up to two hours. The suggested size of a group is five to nine participants, although some researchers have effectively utilized the NGT with larger groups (Lloyd-Jones et al 1999, Thomas 1983, Twible 1992).
Given the desirability of the attribute list contained in Table 3.10., when comparing the NGT with other group processes such as Delphi (Delbecq et al 1975), focus groups, and brainstorming (Stewart and Shamdasani 1990), the NGT has a number of advantages over other group processes. The advantages are compared below.

The major advantages of NGT are: (1) the clarity and usability of the output (which is typically a list of prioritized actions/options), (2) the easy comparison between different groups with possibly divergent opinions, (3) the quality of the participatory process which minimizes dominance effects and considers all participants' views equally, and the (4) limited requirements in terms of time and resources. These advantages are acknowledged by the literature (McMillan et al., 2014; Rankin et al., 2016). As NGT typically reaches a clear outcome, it also provides a sense of achievement for participants (Harvey & Holmes, 2012). Moreover, the method enables one to reach consensus on complex issues (Hutchings et al., 2013; Rankin et al., 2016), and minimizes researcher bias (Van der Laenen, 2015). A potential disadvantage of NGT is facilitator bias. The structuring of NGT by non-participants may limit the participants' creativity (Smith et al., 2012). The success of the method is dependent on goodwill of stakeholders (Kazmierow et al., 2000), and it is difficult to generalize the findings of NGT to a larger population (Jacobson et al., 2005). People willing to participate in an NGT may also have particular attachments to the place, or to the issue at hand, and so their reflections may not be representative (Jacobson et al., 2005). Although NGT is often presented as a time-efficient method, the lack of time to reach consensus is perceived as a limitation in some studies (Kazmierow et al., 2000; Smith et al., 2012). Only three studies explicitly deal with the limitations of NGT, although other studies only use NGT in combination with other methods. In the general literature on NGT, facilitator skills is very important. Facilitators may need to provide assistance to participants with lower literacy levels or health conditions, ensuring that their opinions are heard (McMillan et al., 2014), and should not attempt to overcome the diversity of opinions in order to create artificial consensus (van Teijlingen, Pitchforth, Bishop, & Russel, 2006). Furthermore, the creation of a safe space that is culturally appropriate needs to be supported.

The physical layout of the meeting room should also be conducive to an atmosphere of exchange (Harvey & Holmes, 2012).

Attribute	Delphi	Focus group	Brainstorming	NGT
Face-to-face group meeting process	no	yes	yes	yes
Generates a large number of ideas	Yes	Maybe	Maybe	yes
Avoids focusing on a single train of	Yes	Yes	No	yes
Encourages equal input from all	Yes	No	No	yes
Highly structured process	Yes	Maybe	No	yes
Meeting time usually 1-2 hours duration	No	Yes	Yes	yes
Avoids 'quick' decision making	Yes	No	No	yes
High degree of task completion	Yes	Maybe	No	yes
Provision of immediate feedback	No	Maybe	Maybe	yes
Measures the relative importance of ideas generated	Yes	No	No	yes
Should be facilitated by an experienced	No	Yes	No	Yes

The size of the group of participants is also mentioned as a key issue to keep NGTs manageable, e.g. McMillan et al. (2014) cite a maximum of seven participants. The small group size of NGT exercises minimizes the "participation paradox", which states that the greater the number of participating actors, the smaller the role each plays and the lesser the importance of traditional individual participants (Suarez de Vivero, Rodriguez Mateos, & del Corral, 2008).

NGT samples

There have been disputes and debates as to what would be the optimal size of group for NGT. Van de Ven and Delbecq (1971) suggest that NGT groups should be made up of no more than five to nine participants, but that large group (nine to more than 200) can be accommodated within this process. Whereas, Horton (1980) identified his groups as ranging from seven to ten individuals, whilst Steward (2001), in her work with Occupational Therapy and Physiotherapy students, had groups of between five and eight. Allen et al (2004) worked on a number of participants between nine and twelve, noting that this afforded the researcher a group that would be manageable, but that would also allow for the generation of a range of opinions, whilst Harvey and Holmes (2012) suggested that a group of between six and twelve would have been ideal. Interestingly, Carney et al (1996) noted that from their pilot project findings, that a minimum of six participants was required, in order to engender a sense of 'safety' within the group, illustrating this point by outlining that one of the pilot groups in the study had only contained five members and it was perceived that

this could be felt as 'mildly threatening'. The table below shows further debates on how many participants should take part in NGT.

Name of researcher	Number of participants
Van de Ven dan Delbecq (1971)	5 – 9 participants & 9 – 200 participants
Horton (1980)	7 – 10 participants
Steward (2001)	5 – 8 participants
Allen et al (2004), Odu and Okereke (2012)	9 – 12 participants
Harvey dan Holmes (2012)	6 – 12 participants
Carney et al (1996)	Minimum 6 participants
Dang (2015)	6 participants
Kuo-Hung et al. (2006)	13 participants
Mohd Ridhuan (2016)	21 participants
Abdullah & Islam (2011)	7 – 10 participants
Habibah et al. (2016)	7 – 14 participants

Experts, for the purpose of this study, are referred to as participants; they are responsible providing information to answer the research questions of the validity phase. In particular, this phase requires experts from early childhood education centres. Thus, from this perspective, early childhood educators who are teaching children aged four to six years old, and who have teaching experience of more than five years are selected to be the expert participants of this phase. Sampling subjects of this study consisted of eleven preschool practitioners who were intentionally selected. They have been operating the Little Caliphs program Kindergartens, they have been teachers and operators and also hold the post of principal for their school. As Denzin and Lincoln (1994) put it, many qualitative researchers employ purposive rather than random, sampling methods. Within the context of this study, the operators of Little Caliphs program that are consultants, auditors, and trainers were purposely selected because they might show differences in ideas and practices, due to their different characters and experiences.

Methodology

The Five-Step Process to Conduct NGT for the Little Caliphs expert participants

1. Introduction and explanation

The participants were welcomed. The purpose and procedure of the meeting were explained. The time limit was set, and they were informed that the session would be recorded.

2. Generating Ideas

The moderator presented The Islamic Leadership Model to the group in written form and let the group read in silence. The moderator directed everyone to write ideas in brief phrases or statements and told them to work silently and independently. Each person silently generated ideas, which they wrote down on sticky notes. The notes were then pasted on a mah-jong paper.

3. Sharing and Recording Ideas

Group members engaged in a round-robin feedback session, so each idea was recorded without debate. The moderator wrote an idea from a group member on a flip chart visible to the entire group, and proceeded to ask for another idea from the next group member, and so the process continued. No idea could be repeated, but if any of the group members felt that a particular idea could be interpreted in a variety of ways, or that different aspects of the idea could be emphasized, they were free to include the idea again. This process was carried out until the ideas of all the group members were documented.

4. Discussing Ideas

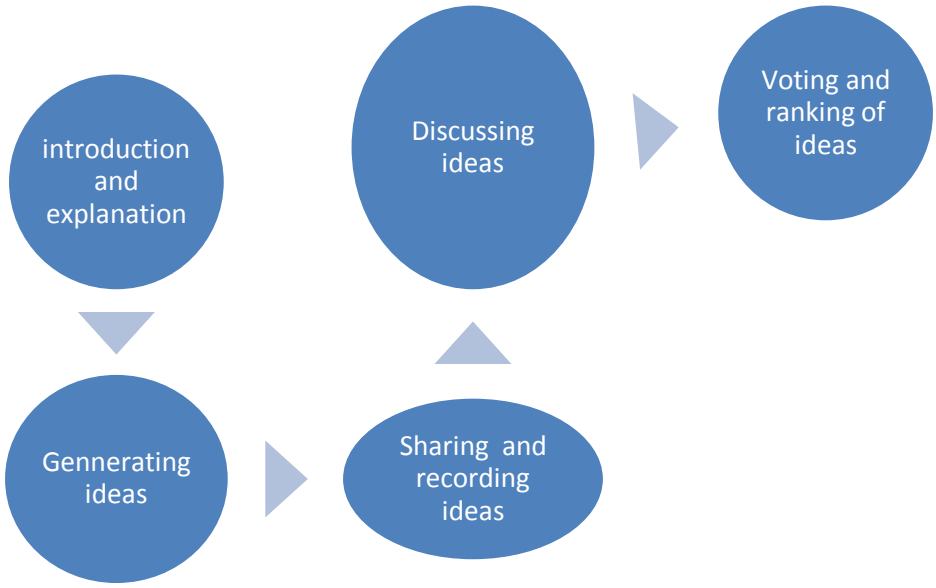
Each recorded idea was later discussed to determine clarity and importance. For each idea, the moderator asked, "Are there any questions or comments that group members would like to make about the item?" This step provided an opportunity for members to express their understanding of the ideas shared and the relative importance of the item. The participant who gave the idea was not obliged to clarify or explain the item; any member of the group could explain or clarify.

5. Voting and ranking of ideas

The ideas given were voted on. The vote counts were recorded. Next, to help prioritize the ideas, the individuals voted privately in a given Google form on how important these ideas were (the rating ranged from not important to very important). The votes were tallied to identify the ideas that were ranked highest by the group as a whole. The moderator established what criteria to use to prioritize the ideas.

1. Introduction and explanation	Welcomed experts and explain to them the purpose and procedure of the meeting	10 mins
2. Generating ideas	Provided the Islamic Leadership model and told them to write down any ideas that came to mind. They were not allowed to consult or discuss their ideas with others	10 mins
3. Sharing and Recording Ideas	Invited the experts to share their ideas by writing on post notes provided and to paste it on the mah-jong paper provided. Then a round robin process was done until all ideas have been presented. There is no argument at this point. It was ensured that all participants get the opportunity to contribute ideas. A written record of all ideas generated by the participants were recorded	20 mins
4. Discussing Ideas	Participants were invited to explain about their ideas. The process was ensured to be as neutral as possible avoiding judgement or criticism. Their suggestions were recorded and combine into categories, and no ideas were eliminated.	30 mins
5. Voting and ranking of ideas	The participants were then given the questions in Google form and the results were shared and ranked accordingly to reach a specific outcome	20 mins

The steps are further simplified in the figure below:



Range of acceptance for measurement in NGT

There are many ways identified to interpret the NGT data, collected from the NGT face to face workshop. Between the range of acceptance for measurement in the NGT frequently used the percentage score must be at the range of 70.0% and above. (Mohd Ridhuan Mohd Jamil 2017; Williams et al. 2006). The range decided is similar to a group scholars whom states that percentage of acceptance of an element is based on the percentage score where an element measured usability shall at least have the percentage of 70.0% based on the opinion of the expert participants of the study (Deslandes et al. 2010; Dobbie et al. 2004).Example in calculating the percentage score

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Numbers of participant= 9
Highest score in Likert scale is 5
Numbers of participant x Highest score in Likert scale: 9 x 5 = 45

Example of element:	Score
Students use many varieties of information to get ideas	43

_____

Result:
Percentage of the score: 43/45 x 100% = 96%

Results

Descriptive Analysis for NGT

The analysis of data from the NGT and reporting of results can be carried out using a combination of both qualitative and quantitative methods, hence reference to the NGT as being a mixed method approach. Inductive content analysis (Patton 1990) of data enables verification of information collected in the meeting process. The individual comments from participants was checked against their individual response in the Google form given (please refer to Appendix P). The comments were also written on a post note and pasted on the mah-jong paper. The facilitator has recorded the valuable insight gained from the individual experts'

comments and discussion. From this qualitative analysis, quotes from participants were extracted from the transcripts to help explain both individual and group thinking to provide improved clarity in the explanation of results. A high quality video recorded was done and this was very helpful to code data so that individual participant's comments can be readily identified for cross checked against written information.

Qualitative Results in NGT

The Islamic leadership model are divided into 3, the values, the skills and characteristics. On the values needed to have in the Islamic leadership model, most of the participants agreed that good spiritual qualities should be ranked no 1. Below is the transcribed script of the respondents.

Respondent 10 agreed that having love and care should be ranked no 1 because they are children. Children should receive love and learn to give love as in Maslow hierarchy of needs. All the respondents agreed to her suggestion

Respondent 2 said that five pillars of Islam should be ranked no 1 together with the six pillars of Iman. She mentioned that the children should know the five pillars of Islam and at least know how to recite shahadah, know the movement and recitation that is obligatory in solat, knowing the importance of solat and know that as Muslims we need to fast and be trained in fasting during the month of Ramadhan. The children need to only know that zakat and hajj is in the five pillars of Islam and they will be able to do that when they are much older and if they are able.

According to the experts' discussion, the children need to know, practice and also encourage their family to do the same even though they are young. This is a very clear sign of an Islamic leader.

Respondent 1 asked why spiritual qualities are ranked no 6. Respondent 8 mentioned that five pillars of Islam and six pillars of Iman are the good spiritual quality and the question is a bit confusing.

According to the experts as the participants, these knowledges will become the values that are extremely essential and the basis of humanity of becoming a leader.

When taking a vote, 83.3% participants which is 7/12 agreed into this idea. The argument is that it is the basic pillars of an Islamic leadership values. This is the value that are able to differentiate between Muslims and non-Muslim leaders

Islamic leadership skills

Respondent 2 mentioned that the word 'Influence others' should be positive; the word positively should be added. All respondents agreed to the suggestion of putting in the word positively to the word influencing others.

Respondent 8 insisted that listening skills should be ranked first. It is according to the language development of children which is to acquire listening skills before others. This is according to the nature of kids and align with the Quranic words mentioned in Surah as Sajdah vs 9.

Respondent 2 agreed too that listening skills should be ranked no 1 this is backed up with the agreement other respondents.

Respondent 11 is to the agreement that listening skill is very important because it will lead to the development of other cognitive skills like speaking, reading and communication.

Respondent 3 mentioned and emphasized that having good listening skill, good communication, critical thinking, being able to solve problems and able to express their feelings are very important skills to be embedded in children so that they grow up to be good leaders.

Respondent 4 said expressing one's feelings is a necessary skill and should be ranked first. This is because "If you can't express yourself you can't lead others"

Respondent 9 suggested that instead of the word 'express' change it to the word 'acknowledge' She further said that if the children can acknowledge their feelings, they will understand which emotion than they can express.

Respondent 11 agreed to the suggestion of respondent 9 because what is important is for children to acknowledge how they feel and what are they feeling. This is because children experience complex feelings just like adults. They get frustrated, excited, nervous, sad, jealous, frightened, worried, angry and embarrassed. She agrees that before knowing how other feels they should know and acknowledge their own feeling first. They don't have to know others feelings yet at this preschool age.
Respondent 3 added that young children usually don't have the vocabulary to talk about how they are feeling. Instead they communicate their feelings in other ways. So if they are able to acknowledge these feelings then they can communicate it through facial expressions, through their body, their behaviour and play. Sometimes they may act out their feelings in physical, inappropriate or problematic ways.

All the respondents agreed to change the word from 'express' to 'acknowledge'.
Respondent 7 asked why public speaking skill is the last in the ranking because leaders should have good public speaking skills.
Respondent 1 said that public speaking is not really a major skill needed to become a good leader.
Respondent 8 did not agree with respondent 1's opinion. She said that public speaking skill is needed depends on the leader's position. Some ranking and position need to have good public speaking skills and some don't.
When taking a vote, 10/11 respondent agreed that listening skills and acknowledging feelings should be ranked together as the most important skills needed in Islamic Leadership model
For the Islamic leadership characters that children must have
Respondent 8 asked why is having responsibilities ranked as no 4 instead of no 1? Having the sense of responsibility will make them better and be more positive. For example, children should have the responsibility to be clean at all time. They are responsible of their own things and this character is important once they get to primary school
When taking a vote, 100% of the respondents agree having responsibility to be higher ranked or no 2 instead of the last
Respondent no 2 asked why is resilience important?
Respondent 7 said that leaders must be resilience like Nabi Yusof alaihi salam. Prophet Yusof was very reliance going through all the tests bestowed upon him.
Respondent 1 said that resilience is a very critical characteristics needed in this world right now, especially in the global digital issues. Resilience is an issue that is much discussed as a character that is lacking in children and teenagers nowadays.
Respondent 11 answered the question why is patience not ranked high in the characteristics of leadership in children? Preschoolers understand the word patience differently from adult. To them the word patience is to procrastinate for example when they say "Wait teacher, please be patient, I will play and then do the work later." The word patience is more of a verb rather than an adjective. Children's vocabulary is not that high and with less life experiences, what they understand the word patience is not the same as adults' understanding of the said word.
Respondent 1 agreed to respondent 11's explanation.
Respondent 5 asked why persistence is important in children
Respondent 2 said that the meaning of persistence is not consistent. Persistence means doing something until they succeed to do it. For example, they are persistence to try to colour the ball even though it takes a long time to do so.
Respondent 9 explained that children are unable to relate persistence in life as persistence in playing games that they like. For example: "if you don't like to go to school you must be persistent as you are persistent in playing games."
Persistence is a much-needed character in a leader.
After going through the process of asking the experts opinions,
the facilitator then asked: "Are all of you strongly agree that this Islamic leadership model for preschool be adopted in all Little Caliphs kindergartens"

100% said yes, they totally agree.

Quantitative results

The quantitative analysis of data results from the scoring and ranking methods used to conclude the meeting process and identify group priorities. In the system described by Delbecq et al (1975), scoring can occur in two stages. The first stage involves rating the importance of the items from 5 (very important) to 1 (not important). The single most important item will be the one receiving the most points. This process implies that the question being addressed, and the items generated are clearly understood by all participants and that it is possible to reach a single solution. However, Frankel (1987) makes the point that complex, or ill-defined problems often require multiple solutions. To accommodate this perspective, Frankel used multi-dimensional scaling methods to analyse data from the NGT. Other researchers have also made adaptations to the original scoring methods (Bartunek and Murninghan 1984, Cook 1980, Hares et al 1992). The degree to which group dynamics influence the NGT and the interpretation of findings has also drawn some discussion (Hares et al 1992, Lomax and McLeman 1984). However, as Jones and Hunter (1995) point out, the findings from consensus methods are rarely an end-point, and are more likely to be an exploratory step from which the outcomes can be further tested. This exploratory step may then lead to a research question being identified that may be addressed through further qualitative and quantitative research design. Analysis of findings for this purpose using a 5-point scale measurement. Based on the analysis of these poll findings, the percentage of votes of agreement of each element for every component of values, skills and characteristics elements listed.

Based on the quantitative result, knowing the six pillars of Iman, understanding the five pillars of Islam and having good spiritual qualities are the top 3 of the ranking list. On the skills that are needed to have Islamic leadership 91.7% agreed to have good listening skills as the most important skills, followed by able to express feeling. From the discussion stated in NGT qualitative descriptive analysis, the respondents suggest the word 'able to express feeling' changed to 'able to acknowledge feelings' which is more appropriate for preschool aged children. All the expert participants unanimously agreed that able to influence others is an important skill but the word positively should be added because influence can be positive or negative.

From the NGT consensus calculation, having good public speaking skills and creativity in doing their work are unaccepted skills for the Islamic Leadership Model. For the characteristics in Islamic Leadership Model, the expert as respondents voted resilience, empathy, honest, resistance as the top characteristics that a leader should have. From the NGT consensus calculation, brave and not shy are unaccepted characteristics for the Islamic Leadership Model.

Conclusion

Nominal Group Technique (NGT) is an evaluative methodology, which allows the generation of ideas and thoughts from a group of participants, through the posing of a single question in a face -to -face session. Unlike the Fuzzy technique where study participants were in isolated places, the Nominal group technique allowed for the direct involvement of participants in giving views democratically. The advantage of this technique is that, it has the capacity to generate a lot of data from just one session with participants, that is highlight the cost -effectiveness of the approach. This approach has its own flexibility, in which it can be modified according to the needs of the study without changing the basic principles of its implementation. This paper presents the application of the technique to obtain consensus views from stakeholders in early childhood education, on key Islamic Leadership model for preschool children. The participants were asked to evaluate the elements of the model in terms of its appropriateness and compliance to Islamic teaching.

Using this method, three qualities were seen as important elements that defined Islamic Leadership competencies namely, values, skills and characteristics. The main qualities that defined leadership values are love and care for others as well as understanding the five pillars of Islam. Listening skills were ranked as the

most essential competencies representing the skill component. Having good listening skills shows caring towards others, opening to new ideas, and building relationships. It can help build empathy skills. As a leader, empathy and listening go hand in hand. These are some of the reasons that having good listening skill is the most important element in the component. Some of the essential children's leadership skills that can be gleaned from the NGT exercise were the ability to express one's feelings, influencing skills, creative thinking and public speaking skill. The top characteristics components that defined children's Islamic Leadership as nominated by the expert panellists are resiliency, empathy, honesty and resistance. Based on the results, it can be concluded that, when applied systematically, NGT enables researchers to collaborate in a meaningful and engaging way with participants and generate tangible outcomes relatively quickly

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