



INTERNATIONAL JOURNAL OF
MODERN EDUCATION
(IJMOE)
www.ijmoe.com



ADAPTATION OF ARABIC SIGN LANGUAGE IN TEACHING FARDU AIN TO THE DEAF

Syar Meeze Mohd Rashid ¹

¹ Centre for Education and Community Wellbeing, Faculty of Education, Universiti Kebangsaan Malaysia
Email: cikgumeeze@ukm.edu.my

Article Info:

Article history:

Received date: 30.09.2025
Revised date: 15.10.2025
Accepted date: 11.11.2025
Published date: 01.12.2025

To cite this document:

Rashid, S. M. M. (2025). Adaptation Of Arabic Sign Language in Teaching Fardhu Ain to the Deaf. *International Journal of Modern Education*, 7 (28), 07-15.

DOI: 10.35631/IJMOE.728002

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Abstract:

The purpose of this study is to examine expert consensus on the adaptation of sign language in teaching Fardhu Ain to the Deaf. The study employed the Fuzzy Delphi Technique to gather agreement from experts proficient in sign language in response to the research questions. The instrument distributed contained 14 items designed to obtain expert consensus. The findings indicate that five key items should be adopted in Arabic Sign Language, namely signs related to the declaration of Shahadah, fundamental beliefs and tenets of Islam, personal cleanliness, aurat (modesty), and prayer. These items achieved a defuzzification value of 0.767, confirming their importance in supporting accessible religious education for the Deaf community.

Keywords:

Arabic Sign Language, Fardhu Ain, Deaf

Introduction

Sign language is a primary mode of communication within the Deaf community and is also used by individuals with speech impairments or those who cannot acquire language through speech (Wilbur, 2013). The use of sign language facilitates accessible, two-way communication and enables Deaf individuals to express feelings, opinions, and ideas. Its uniqueness lies in the semantic role of handshapes and movements, which convey meaning in context (Loughran, 2013), complemented by facial expressions and body language that provide

visual prosody and emphasis (Wilbur, 2013). In Malaysia, sign language functions not only as a communication medium but also as a cultural marker of identity for people who are Deaf, reflecting their lived experiences and community norms (Mohamed Sazali Shaari, 2004).

Religious education is obligatory for Muslims who are of sound mind, including Deaf individuals, who are fully capable of receiving *dakwah* and religious instruction (Hamdi Isaac, 2010). It is therefore incumbent that Islamic education grounded in the Qur'an and Sunnah be made accessible to Deaf learners (Hamdi Isaac, Ab Halim Tamuri, Abdul Majid, Fields, & Safani Bari, 2010). As stated in the Qur'an, humankind is created to worship Allah (Qur'an 51:56). Accordingly, every Muslim should be taught the fundamentals of *Fardhu Ain* as a foundation for resilient religious practice (Mohd Huzairi et. al., 2010).

Effective teaching of *Fardhu Ain* to Deaf learners requires educators to possess sign-language skills (Siti Muhibah Nor, 2010; Hamdi Isaac et al., 2010; Mohd Huzairi Awang et al., 2010). Instruction delivered in sign language is associated with greater engagement and understanding of religious content (Mohd Mokhtar Tahar & Aliza Alias, 2003; Hamdi Isaac et al., 2010; Siti Muhibah Nor, 2010). However, despite the availability of *Fardhu Ain* classes in special schools and through state religious councils, many students do not fully internalize the content taught (Abdul Munir Ismail, 2009), partly due to the lack of standardized Islamic terminology in sign language suited to religious instruction (Siti Muhibah Nor, 2010; Hamdi Ishak et al., 2010; Mohd Huzairi Awang et al., 2010).

In response to similar challenges across Arab contexts, a multi-country initiative convened by the Ministry of Tourism, Culture and Heritage of Qatar in 2013 gathered experts from over 50 Arab nations to address suitable sign usage in Islamic domains, producing an Islamic sign-language dictionary of approximately 1,200 Islam-related signs (Zakarna et al., 2013). Given the current gap in Malaysia, this study investigates expert consensus on adapting relevant Arabic Sign Language (ArSL) terminology for use in teaching *Fardhu Ain* to Deaf learners in Malaysia.

Research objective: To determine expert consensus on the adaptation of Arabic Sign Language terminology for teaching *Fardhu Ain* to Deaf learners in Malaysia.

Research question: Can Arabic Sign Language terminology be appropriately adapted for the teaching of *Fardhu Ain* to Deaf learners?

Literature Review

Sign languages are fully fledged natural languages with grammars distinct from surrounding spoken languages; meaning is encoded through handshape, movement, orientation, location, and non-manual signals (Wilbur, 2013; Loughran, 2013). In the Malaysian context, sign language encapsulates community identity and cultural practice (Mohamed Sazali Shaari, 2004). Islamic education is compulsory for Muslims, and Deaf individuals are entitled to accessible religious instruction aligned with the Qur'an and Sunnah (Hamdi Isaac, 2010; Hamdi Isaac et al., 2010). Teaching *Fardhu Ain* through sign language has been associated with improved comprehension and motivation (Mohd Mokhtar Tahar & Aliza Alias, 2003; Siti Muhibah Nor, 2010). Local and international studies also report the effectiveness of sign-mediated instruction for Deaf learners (e.g., Zulkifli Md Ali Tahar et al., 2010; Abdullah Yusoff & Che Rabiaah Mohamed, 2009; Iftirah Arba'iah Othman, 2001; Huang, 2012; Wilbur,

2013; Loughran, 2013; Lianna, 2013; Lieberman, Borovsky, Hatrak, & Mayberry, 2014; Dubot & Collet, 2014; Huang & Mann, 2014). Despite the provision of classes, the lack of standardized Islamic sign terminology has hindered full uptake of Fardhu Ain content among Deaf students (Abdul Munir Ismail, 2009; Siti Muhibah Nor, 2010; Hamdi Ishak et al., 2010; Mohd Huzairi Awang et al., 2010). Regionally, the 2013 Arab-world initiative produced an Islamic sign dictionary (~1,200 entries) to support religious communication (Zakarna et al., 2013). This resource presents a viable foundation for adaptation in Malaysia, subject to expert validation to ensure linguistic, cultural, and theological appropriateness. Collectively, the literature indicates both strong pedagogical justification and an urgent need for standardized terminology, motivating the present study on adapting Arabic Sign Language for teaching Fardhu Ain to Deaf learners in Malaysia.

Methodology

In getting the agreement, the experts used the technique of Fuzzy Delphi. Fuzzy Delphi technique is a technique that was recently presented in the context in the study of education in Malaysia (Norlidah Alias et. al., 2014 Saiman Sinnatamby K, S, Laily Mastura Mustafa, Norlidah Alias & Saedah Siraj, 2013). This method was introduced by Kaufman and Gupta in the year 1998 (Saedah Siraj et. al., 2013). Fuzzy Delphi technique is not something new but it is an instrument (questionnaire) produced from the findings using the Delphi technique (Saedah Siraj et. al., 2013). A total of 30 expert consensus through Fuzzy Delphi technique was used. Fuzzy Delphi technique was selected because researchers felt that this technique was the best technique to obtain the agreement of the expert in adapting the Arabic sign language in teaching fardhu ain. This study used two steps in the technique of Fuzzy Delphi. The creation of Delphi instruments used open discussion on the 5 experts for the first step. The second step was to formulate a questionnaire based on the first step and this questionnaire involved 30 experts including the 5 who were involved in the first step.

Research Sample

Sample 30 experts comprised of 15 teachers with disabilities hearing specialising in sign language and 15 of non-disabled teachers specializing in teaching basic Fardhu Ain to the hearing disabled.

Data Collection Instrument

This study used the questionnaire that was created based on the discussion or interview of the 5 experts. Based on that interview, 14 items were approved by the experts to be included in the questionnaire.

Data Analysis

There are seven steps in analyzing Fuzzy Delphi techniques. Below is the Fuzzy technique measures used by Delphi research which are as follow:

Step 1: Identifying the Experts Involved

30 people experts will be selected in answering the questionnaire the five experts who were interviewed.

Step 2: Linguistic Scale Selection

In this study, researchers have chosen the 5-point linguistic scale which are strongly disagree, disagree, moderately agree, agree and strongly agree.

Step 3: Mean Value

Mean value shall be determined according to a predetermined formula value. Below is a formula used in obtaining the mean value:

$$d(\tilde{m}, \tilde{n}) = \sqrt{\frac{1}{3}[(m_1 - n_1)^2 + (m_2 - n_2)^2 + (m_3 - n_3)^2]}.$$

Step 4: Determining the “d” Value (Threshold Value)

If the value of d is $d < 0.2$, then all the experts have reached a consensus. If the value of D is $d > 0.2$, the researchers will have carry out the items for the second round.

Step 5: Obtaining 75% Consensus

For this step, research has reached a mutual consensus by the experts or also known as the consensus group. For this step, if the experts come up with a mutual agreement of 75%, then the group has reached a consensus. Conversely, if the if the mutual agreement is less than 75%, the researcher has to carry out a second round to make sure that the consensus has been reached.

Step 6: Obtaining the Fuzzy Evaluation

Fuzzy evaluation is one method to determine the ranking for an item. Because the process is quite difficult because it involved complex numbering, then an alternative method using mathematic formula is used as a method of determination of the ranking, and this method is called defuzzification process.

Step 7: Defuzzification (The Process of Determining the Score)

For defuzzification process, researchers have used formula $A_{max} = 1/3 * (a_1 \text{ am } a_2)$ to get defuzzification. At this step the researcher can determine the score or ranking according to the consensus of experts.

Results and Discussion

The findings below will be explicitly discussed based on the objective of the study that has been previously mentioned.

Finding The Value of Threshold for Termenologi Arab Sign Language That Can Be Adopted in Teaching Fardhu Ain to the Disabled Hearing

The researcher analysed the data using the Duzzy Delphi approach through steps 3-7 to answer the mentioned research question. In order to find the degree of agreement between the experts, research findings for all the items are analysed by determining the distance between 2 Fuzzynumbers in order tot identify the threshold value. According to Saedah Siraj et. al., (2013) and Fuziah Rosman (2014), in order to analyse the data, the distance between 2 Fuzzy numbers is counted by measuring the deviation of the mean value. The criteria that is used to place value on the experts' consensus is based on the agreement of more than 75%.

Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.363	0.32823	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.1324	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.2546	0.2546	0.2546	0.2546	0.2342	0.0509	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444
0.0509	0.0509	0.0509	0.2546	0.0713	0.0509	0.2444	0.0611	0.2444	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.2342	0.2546	0.0611	0.2444	0.0611	0.0611	0.0611	0.2444	0.2444	0.2444
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.2546	0.2546	0.2546	0.2546	0.2342	0.2546	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.2342	0.2546	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.2546	0.2546	0.2546	0.2546	0.2342	0.2546	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444
0.2546	0.2546	0.2546	0.2546	0.2342	0.2546	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.2546	0.2546	0.2546	0.2546	0.2342	0.2546	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444	0.2444
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0396	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
0.0509	0.0509	0.0509	0.0509	0.0713	0.0509	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611	0.0611
29	24	27	23	21	14	29	30	22	25	7	6	29	29

Table 1 Shows the Value of Threshold for Arabic Sign Language Terminology That Can Be Adapted in Teaching Fardhu Ain to The Disabled Hearing

In this study, one (1) is complied with because the value threshold for most items is ≤ 0.2 , but only some items has the value of ≥ 0.2 . Nonetheless, the second condition (2) has also been observed because the consensus of the Group of experts has exceeded 75%. The result of the calculation of the value of the threshold ≤ 0.2 from table 1, shows that the research gets the value of the threshold in excess of 75% with a total of 80% for the content item, which includes a total of 14 items. This shows the degree of agreement among the experts has reached a very good consensus. Therefore, the second round for fuzzy Delphi is not needed because data acquisition comply with both conditions.

The Findings for Arabic Sign Language Terminology That Can Be Adapted In Teaching Fardhu Ain to The Disabled Hearing

Analysis shows the design contents of the teaching curriculum for BIM based on the Basic Fardhu Ain theme. In part C, there are 14 types of items for the context in designing the curriculum for BIM teaching based on the Basic Fardhu Ain.

Table 2 Adapting Arabic Sign Language In Teaching Basic Fardhu Ain

Item	Adapting Arabic Sign language in teaching sign language	Fuzzy evaluation	Defuzzification	Rank
1	Sign for proclamation of the Syahadah	(17, 23, 29)	0.767	1
2	Sign for pillars of beliefs and tenets of islam	(17, 23, 29)	0.767	1
3	Sign for cleanliness	(17, 23, 29)	0.767	1
4	Sign for Aurat	(17, 23, 29)	0.767	1

5	Sign for Adhan and Iqamat	(16.6, 22.6, 28.6)	0.753	3
6	Sign for solat/prayers	(17, 23, 29)	0.767	1
7	Sign for fast	(16.8, 22.8, 28.8)	0.76	2
8	Sign for zakat/giving alms	(16.8 22.8, 28.8)	0.76	2
9	Sign for haj and umrah	(16.8 22.8, 28.8)	0.76	2
10	Sign for slaughter and giving sacrifice	(16.8 22.8, 28.8)	0.76	2
11	Sign for marriage	(16.8 22.8, 28.8)	0.76	2
12	Sign for deed	(16.8 22.8, 28.8)	0.76	2
13	Sign for dzikir (remembering Allah) and selawat (remembering Rasulullah PBUH)	(16.8 22.8, 28.8)	0.76	2
14	Sign for dua prayers	(16.8 22.8, 28.8)	0.76	2

Based on table 2 all 14 items on Arabic sign language terminology has reached the highest consensus of experts that is to say more than 0.60. This article shows all 14 items are agreed upon by all experts. However, majority of the experts agree and the selected items 1, 2, 3, 4 and 6 to the value of defuzzification (0.767) should be given greater emphasis and importance. This finding indicates that the Arabic sign language related to the proclamation of the Shahadah, sign language-related to the pillars of beliefs and tenets of Islam, sign language related issues of body cleanliness, aurat, and solat or prayers are very important and necessary in the teaching fardhu ain. This makes items 1, 2, 3, 4 and 6 are in first position in the priority list of experts based on the consensus of the collective agreement. This is followed with items 7, 8, 9, 10, 11, 12, 13 and 14 with the defuzzification value of (0.76), which is ranked in the second position. Next, the item 5 is in the third position with a value of defuzzification of (0.753).

Discussion

Findings of research on adaptation in sign language teaching fardhu ain to deaf shows that all the experts agree with all terminology items proposed there in teaching basic fardhu ain to the hearing disabled by accessing the expert consensus more than 0.60. However, there are 5 items should come first or given emphasis. Among them are items 1, 2, 3, 4 and 6 which are signs related to the proclamation of the Shahadah, the pillars of beliefs and tenets of Islam, body cleanliness, aurat, and solat or prayers.

Owing to the experts' consensus, these 5 items must be given importance and emphasis in the adapting Arabic sign language terminology in the teaching of fardhu ain. This is because, these are the fundamental and the most important items in teaching basic fardhu ain in moulding a true Muslim. Therefore, all the experts agree that these items must be given importance; therefore the signs must be made known. These signs will then be used by the main topics in the basic fardhu ain module for both primary and secondary schools. Apart from that, basic fardhu ain classes for teens and adults will also be given emphasis on these topics as a starting point for learning fardhu ain. Furthermore, according to Ismail Kamus and Mohd Azrul Azlen Ab Hamid (2009) in their book "*Indahnya hidup bersyariat*", topics such as the proclamation of the syahadah, pollars and tenets of Islam, body cleanliness, solat, fasting and aurat are the

primary topics. Furthermore, in the research carried out by Mustapha Kamal Ahmad Kassim (2001) also shows that all the five topics are the foundation in studying basic fardhu ain in primary and secondary schools. Even (PRISMA) or the Malaysian Muslim Hearing Disabled Association shows that these five items are the first few items taught in fardhu ain classes across several states to teens and adults with hearing disabilities.

In addition, items number 7, 8, 9, 10, 11, 12, 13 and 14 are items that are in the second position with a value of defuzzification of (0.76). Among the items are sign language related to fasting, zakat or giving alms, haj and umrah, slaughter and giving sacrifice, doing deeds, zikir and salawat or remembering Allah SWT and Rasulullah SWT and practice of the dua or prayer. These items should also be included in the content design of the curriculum but be placed in the second rank of importance or emphasis based on the experts' consensus. Item number 5 is placed third in rank with the defuzzification value of (0.753). As for the item for sign language related to the adzan and iqamah, the experts feel that it is only mere knowledge of these items because sign language does not involve the sound and intonation as found in the adhaan and the iqamah.

Implications of the research:

1. The Department of Islamic Development Malaysia (JAKIM) should see this study as a significant study on the adaptation of Arabic sign language in the teaching of Fardhu Ain to deaf people. They should study more in depth about the appropriateness of the use of terminology in teaching fardhu ain to the deaf.
2. This study actually provides an opportunity for parents and teachers who have children or students deaf to learning Arabic sign language, especially if previously parents and teachers do not know the appropriate sign language that can be used in teaching Basic Fardhu Ain to pupils such disability. Therefore, the adaption of this can help parents and teachers to be able to interact with the disabled hearing to teach or discuss religion particularly in relation to Basic Fardhu Ain.
3. With the adaptation of Arabic sign language in the teaching of fardhu ain for the hearing disabled, it will give the opportunity for that community to have a better understanding of basic fardhu ain and further allows them the opportunity to be closer to Allah SWT.

Conclusion

The overall summary of the study of the adaptation of Arabic sign language in the teaching of Fardhu Ain to the deaf people found that all 14 items reached the highest consensus of experts that is to say more than 0.60. However, majority of the experts agree and selected sign language items to the proclamation of the Shahadah, pillars of beliefs and tenets of Islam, body cleanliness, aurat, and solat or prayers with the value of defuzzification (0.767) should be given greater emphasis and importance first. This makes the item concerned to be in the first position in the priority according to list of experts based on the consensus of the collective agreement. While the remaining items is ranked second and third.

Acknowledgements

The author gratefully acknowledges the Centre for Education and Community Wellbeing Studies, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), and the Ibn Umami

Makhtum Research Centre, Universiti Sains Islam Malaysia (USIM) for their support and collaboration throughout this study. Any remaining errors are the author own.

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