

Developing Visual-Spatial Islamic Education Innovation for Muslim Children with Autism: A Preliminary Qualitative Study through Thematic Analysis

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INTRODUCTION

Background

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by challenges in social communication, restricted interests, and repetitive behaviors (American Psychiatric Association, 2013). In Malaysia, the prevalence of autism has increased significantly, with recent estimates suggesting 1 in 600 children are diagnosed with ASD, with higher rates projected to reach approximately 1.6% (Hassan, Wardi, Abdullah, & Isa, 2024). Among Muslim families, ensuring religious education for autistic children presents unique challenges, as traditional teaching methods often rely on abstract concepts and verbal instruction that may not align with the learning styles of neurodivergent individuals.

Islamic faith education (akidah) involves teaching fundamental beliefs about God, the afterlife, reward and punishment, heaven and hell, concepts that are inherently abstract and challenging for children with autism to comprehend. Research has demonstrated that children with autism benefit significantly from visual-spatial learning approaches, concrete representations, and structured environments (Hassan, Wahed, Wardi, Abdullah, Isa, & Ahmad, 2023; Hassan, Wardi, Abdullah, & Isa, 2024).

Despite the growing body of research on autism interventions, there is a conspicuous gap in culturally-sensitive, religiously-appropriate educational tools specifically designed for Muslim children with autism. This gap creates significant distress for Muslim families who wish to provide their children with proper religious education while respecting their unique learning needs.

Problem Statement

The challenges faced by Muslim educators, parents, and therapists in teaching Islamic concepts to autistic children include:

1. **Abstract Nature of Religious Concepts:** Traditional Islamic education relies heavily on abstract theological concepts that are difficult for concrete thinkers to grasp

2. **Lack of Specialized Resources:** There is a dearth of evidence-based, autism-friendly Islamic education materials in Malaysia and globally
3. **Cultural Sensitivity Issues:** Existing autism interventions often lack cultural and religious appropriateness for Muslim communities
4. **Limited Teacher Training:** Many Islamic educators lack training in special education and autism-specific pedagogy
5. **Family Burden:** Parents struggle to bridge the gap between religious obligations and their child's learning differences

Research Objectives

This preliminary qualitative study aims to:

1. Explore the experiences and challenges of Muslim educators, parents, and counselors in teaching Islamic faith (akidah) to children with autism
2. Identify the learning needs and preferred teaching strategies for autistic Muslim children
3. Gather perspectives on the potential benefits and design features of visual-spatial Islamic education tools
4. Inform the development of an innovative board game intervention called "Destinasi Akhir" for teaching Islamic concepts to autistic children

Research Questions

1. What are the primary challenges faced by Muslim educators, parents, and counselors in teaching Islamic akidah to children with autism?
2. What learning approaches and strategies are perceived as most effective for teaching religious concepts to autistic children?
3. What features should be incorporated into visual-spatial educational tools for Islamic education among autistic learners?
4. How do stakeholders perceive the potential impact of game-based learning for Islamic education in the autism community?

Significance of Study

This study is significant for several reasons:

Theoretical Contribution: It extends the application of visual-spatial learning theory and Universal Design for Learning (UDL) principles to Islamic religious education, a previously underexplored domain.

Practical Contribution: The findings directly inform the development of "Destinasi Akhir," an innovative board game that addresses a critical gap in autism-friendly Islamic education resources.

Social Contribution: By validating the needs of Muslim families with autistic children, this study contributes to greater inclusivity within Muslim communities and promotes the rights of neurodivergent individuals to access religious education.

Policy Contribution: The study provides evidence that can inform educational policy regarding inclusive religious education in Malaysia's special education system.

LITERATURE REVIEW

Autism Spectrum Disorder and Learning Characteristics

Autism Spectrum Disorder (ASD) is characterized by persistent deficits in social communication and interaction across multiple contexts, along with restricted, repetitive patterns of behavior, interests, or activities (American Psychiatric Association, 2013). Within the spectrum, High Functioning Autism (HFA) and Asperger's Syndrome refer to individuals with average to above-average intellectual abilities but who still experience challenges in social communication, sensory processing, and cognitive flexibility.

Children with autism often demonstrate distinct cognitive profiles that influence their learning. Research has consistently shown that many autistic individuals are strong visual thinkers who process information more effectively through visual-spatial channels rather than verbal-auditory channels (Hassan et al., 2024). This "thinking in pictures" characteristic has significant implications for educational design.

Visual-Spatial Learning and Autism

Visual-spatial learning refers to the ability to perceive, analyze, synthesize, and think in visual images. For autistic learners, visual supports have been extensively researched and validated as evidence-based practices. Visual supports include visual schedules and timetables, social stories with pictures, visual cue cards, graphic organizers, and mind maps.

Hassan's (2024) PhD research on "Visual-Spatial: A Mediator Effects On The Autism Spectrum Disorders (ASD) Achievement In Speech Utterance" demonstrated that visual-spatial interventions significantly improved communication outcomes for children with ASD. The Communication Enrichment Model (ICEM) combined with visual-spatial strategies showed measurable improvements in speech utterance proficiency and pragmatic language skills.

Religious Education and Autism

Research on religious education for children with autism is limited but growing. Studies indicate that religious communities often struggle to provide inclusive education for neurodivergent members. Specific challenges include abstract theological concepts that are difficult for concrete thinkers, sensory overload in religious settings, social demands in religious participation, and lack of adapted materials.

Islamic Education for Special Needs

Within the Islamic context, there is limited research on special needs education. Traditional Islamic education (ta'lim) emphasizes memorization, oral recitation, and abstract theological reasoning approaches that may not align with autism learning profiles.

However, Islamic principles strongly support inclusive education. The concept of "tazkiyah" (purification and growth) applies to all individuals regardless of ability. Recent efforts in Muslim communities have begun addressing special needs, but materials specifically for autism remain scarce, particularly in Southeast Asia.

Game-Based Learning and Autism

Game-based learning (GBL) has shown promising results for autistic learners. Serious games designed for educational purposes beyond entertainment can provide structured environments that reduce anxiety, clear rules and predictable outcomes, immediate feedback through game mechanics, safe spaces for practicing skills, and motivation through achievement systems.

Research has found that board games improved social interaction, turn-taking, and rule-following behaviors in children with autism (Hassan, Wardi, Razali, Hishamuddin, Ahmad, Nashir, & Nasir, 2023). Digital and non-digital games both showed benefits, with tactile board games offering additional sensory engagement.

Universal Design for Learning (UDL)

Universal Design for Learning (UDL) is a framework for designing educational materials that are accessible to the widest range of learners. UDL principles include multiple means of representation, multiple means of action and expression, and multiple means of engagement.

UDL is particularly relevant for autism education as it inherently accommodates diverse learning profiles without requiring individual adaptations.

Theoretical Framework

This study is grounded in several theoretical frameworks:

1. Visual-Spatial Learning Theory

- Recognizes that visual-spatial learners think primarily in images
- Suggests educational materials should leverage visual strengths

2. Communication Enrichment Model - ICEM (Hassan, 2024)

- Integrates visual-spatial elements with communication development
- Demonstrates measurable outcomes in autism intervention

3. Universal Design for Learning - UDL

- Provides framework for inclusive educational design
- Ensures accessibility without requiring individual accommodations

4. Constructivist Learning Theory

- Emphasizes active learning through play and exploration
- Supports game-based learning approaches

Conceptual Framework

Based on the literature review, this study proposes the following conceptual framework for developing visual-spatial Islamic education innovations for autistic children:

INPUT → PROCESS → OUTPUT

INPUT:

- Autism learning characteristics
- Islamic education requirements
- Stakeholder perspectives
- Cultural context

PROCESS:

- Visual-spatial design

- Game-based learning mechanics
- UDL principles
- Evidence-based autism strategies

OUTPUT:

- Improved akidah comprehension
- Enhanced social skills
- Increased engagement
- Family empowerment
- Inclusive Muslim community

Research Gap

Despite the growing literature on autism interventions and the recognized importance of culturally-sensitive practices, there is a critical gap in research specifically addressing Islamic education for autistic Muslim children. To the researcher's knowledge, no published studies have explored:

1. The specific challenges of teaching Islamic akidah (faith) to autistic children
2. Visual-spatial approaches to Islamic theology education
3. Game-based Islamic education tools designed for autism
4. Stakeholder perspectives (educators, parents, counselors) on autism-friendly Islamic education

This study addresses this gap through a preliminary qualitative exploration that directly informs the development of an innovative intervention: the "Destinasi Akhir" board game.

METHODOLOGY

Research Design

This study employed a qualitative research design using semi-structured interviews and thematic analysis. Qualitative methodology was selected as appropriate for this preliminary, exploratory study aimed at understanding lived experiences, perspectives, and needs of stakeholders working with autistic Muslim children.

The study follows an interpretivist paradigm, acknowledging that reality is socially constructed and that multiple perspectives contribute to understanding complex phenomena.

Research Setting

The study was conducted in Klang Valley, Malaysia, between August and October 2024. Participants were recruited from various settings including special education schools, autism intervention centers, mosques, and family homes.

Population and Sampling

Population: The target population consisted of Muslim educators, parents, and counselors in Klang Valley who have direct experience working with or caring for children with autism for a minimum of five years.

Sampling Method: Purposive sampling was used to select information-rich cases that could provide in-depth perspectives. Inclusion criteria were:

1. Muslim individuals
2. Minimum 5 years experience with autistic children
3. Current involvement in education, therapy, or caregiving roles
4. Willingness to participate and provide informed consent
5. Able to communicate in Malay or English

Sample Size: Three key informants were recruited, representing diverse stakeholder perspectives:

- **Participant 1 (P1):** Special Education Teacher with 8 years experience teaching autistic students in inclusive settings
- **Participant 2 (P2):** Parent of a 12-year-old child with High Functioning Autism, 12 years caregiving experience
- **Participant 3 (P3):** Islamic Counselor specializing in special needs children, 7 years experience

While qualitative studies often use small samples, this preliminary study's sample of three is justified for exploratory research and is consistent with case study methodologies. Larger studies will follow based on these preliminary findings.

Data Collection Instrument

A semi-structured interview protocol consisting of 10 open-ended questions was developed based on the literature review and research objectives. The interview guide was reviewed by two experts in special education and qualitative research for face validity.

Interview Questions:

1. Based on your experience, what are the main challenges you face in teaching or explaining Islamic concepts (like akidah, akhira, pahala/dosa) to children with autism?
2. How do children with autism typically respond to traditional Islamic education methods (memorization, lectures, verbal explanation)?
3. What teaching strategies or approaches have you found most effective when teaching religious concepts to autistic children?
4. From your perspective, why is visual or hands-on learning important for autistic children in religious education?
5. Have you used any games, visual aids, or special tools when teaching Islam to autistic children? What were the results?
6. What specific features or characteristics should educational materials have to be suitable for autistic children?
7. In your opinion, what Islamic concepts are most difficult for autistic children to understand, and why?
8. How do you think a board game could help autistic children learn about Islamic faith concepts like the afterlife, heaven, and hell?

9. What impact do you think appropriate Islamic education tools could have on autistic children and their families?
10. What recommendations would you give for developing educational innovations specifically for teaching Islam to autistic Muslim children?

Data Collection Procedures

Ethical Considerations:

- Ethical approval was obtained from Universiti Teknologi MARA Research Ethics Committee
- Informed consent was obtained from all participants
- Confidentiality and anonymity were ensured through the use of participant codes (P1, P2, P3)
- Participants were informed of their right to withdraw at any time

Interview Process:

- Interviews were conducted individually in settings chosen by participants for their comfort
- Each interview lasted 45-60 minutes
- Interviews were conducted in Bahasa Malaysia (participants' preferred language)
- Interviews were audio-recorded with permission and transcribed verbatim
- Field notes were taken to capture non-verbal cues and contextual information

Data Analysis

Data were analyzed using Braun and Clarke's (2006) six-phase thematic analysis:

Phase 1: Familiarization with data

- Transcripts were read multiple times
- Initial notes and observations were recorded

Phase 2: Generating initial codes

- Data were coded systematically
- Both semantic (explicit) and latent (implicit) codes were identified

Phase 3: Searching for themes

- Codes were grouped into potential themes
- Theme maps were created to visualize relationships

Phase 4: Reviewing themes

- Themes were refined and checked against coded extracts
- Coherence and distinctiveness of themes were ensured

Phase 5: Defining and naming themes

- Clear definitions and names for each theme were established
- Sub-themes were identified where appropriate

Phase 6: Producing the report

- Final themes were presented with supporting quotes
- Analysis was related back to research questions and literature

Rigor and Trustworthiness

To ensure rigor, Lincoln and Guba's (1985) criteria for trustworthiness were addressed:

Credibility:

- Prolonged engagement with data
- Peer debriefing with two colleagues
- Member checking (participants reviewed their transcripts)

Transferability:

- Rich, thick descriptions provided
- Detailed context described

Dependability:

- Clear audit trail maintained
- Research processes documented

Confirmability:

- Reflexive journaling throughout the research process
- Data-driven analysis (rather than researcher-driven)

Limitations

This preliminary study has several limitations:

- Small sample size (n=3) limits generalizability
- Single geographic location (Klang Valley)
- Cross-sectional design captures perspectives at one point in time
- Potential social desirability bias in self-reported data
- Language translation may result in nuance loss

These limitations are acknowledged and inform recommendations for future research.

RESULTS/FINDINGS

Participant Characteristics

Table 1: Demographic Characteristics of Participants

Code	Role	Gender	Experience (Years)	Setting	Education Level
P1	Special Education Teacher	Female	8	Inclusive School, Klang Valley	Master's in Special Education
P2	Parent	Female	12	Home/Community	Bachelor's Degree
P3	Islamic Counselor	Male	7	Islamic Center & Mosque	Master's in Islamic Studies + Counseling Cert.

Thematic Analysis Results

Four major themes emerged from the data analysis, with multiple sub-themes under each. These themes are presented below with supporting quotations from participants.

Theme 1: Challenges In Teaching Abstract Islamic Concepts To Autistic Children

This theme captures the fundamental difficulties faced by educators, parents, and counselors in conveying abstract theological concepts to children who think concretely and literally.

Table 2: Sub-themes and Frequency of Coding Under Theme 1

Sub-theme	Description	P1	P2	P3	Total References
1.1 Abstract vs. Concrete Thinking	Difficulty explaining invisible/abstract concepts (Allah, roh, akhirat)	8	6	9	23
1.2 Literal Interpretation Issues	Misunderstanding metaphors and figurative language	5	7	4	16
1.3 Temporal Concept Challenges	Difficulty understanding "after death," "eternal," "forever"	4	5	6	15
1.4 Cause-Effect Reasoning Gaps	Struggling to connect actions (amal) with consequences (pahala/dosa)	6	8	7	21

Supporting Quotations:

Sub-theme 1.1: Abstract vs. Concrete Thinking

P1 (Teacher): "Bila saya ajar tentang Allah, anak-anak autisme akan tanya 'mana Allah? saya nak tengok.' Mereka tidak faham konsep yang tidak boleh dilihat. Sama juga dengan syurga dan neraka—mereka nak 'lihat gambar' atau 'pergi sana' untuk percaya."

[Translation: "When I teach about Allah, autistic children ask 'where is Allah? I want to see.' They don't understand concepts that cannot be seen. Same with heaven and hell—they want to 'see pictures' or 'go there' to believe."]

P2 (Parent): "Anak saya selalu tanya soalan yang sangat literal. Bila saya cakap 'Allah sentiasa bersama kita,' dia akan cari Allah dalam bilik. Dia tak faham maksud spiritual atau abstrak. Semua mesti konkrit untuk dia."

[Translation: "My child always asks very literal questions. When I say 'Allah is always with us,' he searches for Allah in the room. He doesn't understand spiritual or abstract meaning. Everything must be concrete for him."]

P3 (Counselor): "Konsep roh, akhirat, iman—ini semua sangat abstrak. Kanak-kanak autisme berpikiran konkrit. Mereka perlukan sesuatu yang boleh dilihat, disentuh, atau dialami secara nyata. Ini cabaran terbesar dalam pengajaran akidah."

[Translation: "Concepts of soul, afterlife, faith—these are all very abstract. Autistic children think concretely. They need something that can be seen, touched, or experienced tangibly. This is the biggest challenge in teaching akidah."]

Sub-theme 1.2: Literal Interpretation Issues

P1 (Teacher): "Saya pernah ajar tentang 'jambatan sirat yang lebih tajam dari pedang.' Budak autisme saya takut dan menangis sebab dia bayangkan betul-betul pedang tajam yang akan kena. Dia tak faham ia metafora."

[Translation: "I once taught about 'the sirat bridge sharper than a sword.' My autistic student was scared and cried because he literally imagined a sharp sword he would encounter. He didn't understand it was a metaphor."]

P2 (Parent): "Bila ustaz kata 'hati yang bersih,' anak saya tanya 'macam mana nak cuci hati? guna sabun ke?' Ini masalah kerana bahasa agama banyak gunakan kiasan yang dia tak faham."

[Translation: "When the ustaz said 'a clean heart,' my child asked 'how do you wash a heart? use soap?' This is a problem because religious language uses many metaphors he doesn't understand."]

Theme 2: The Critical Need For Visual-Spatial And Concrete Learning Approaches

This theme emphasizes participants' strong consensus that visual, tangible, and structured learning materials are essential for effective Islamic education among autistic children. This finding directly aligns with Hassan et al.'s (2024) research on leveraging visual-spatial abilities to unlock speech and Hassan et al.'s (2023) work on designing visual teaching tools for ASD children.

Table 3: Sub-themes and Frequency of Coding Under Theme 2

Sub-theme	Description	P1	P2	P3	Total References
2.1 Visual Strengths in Autism	Recognition that autistic children are visual thinkers	9	7	8	24
2.2 Need for Concrete Representations	Requirement for tangible, physical learning materials	7	9	6	22
2.3 Sequential Visual Mapping	Importance of step-by-step visual sequences	5	4	7	16
2.4 Color Coding and Symbols	Use of colors and symbols to represent concepts	6	5	5	16

Supporting Quotations:

Sub-theme 2.1: Visual Strengths in Autism

P1 (Teacher): "Saya dapati anak-anak autisme saya sangat kuat dalam pembelajaran visual. Bila saya tunjuk gambar atau video, mereka ingat lama. Tapi bila saya hanya cakap verbal, mereka cepat lupa. Mereka 'think in pictures' macam kata Temple Grandin."

[Translation: "I find my autistic children are very strong in visual learning. When I show pictures or videos, they remember long. But when I only speak verbally, they forget quickly. They 'think in pictures' as Temple Grandin says."]

This observation is strongly supported by Hassan et al.'s (2024) PhD research which demonstrated that visual-spatial abilities serve as mediators for speech utterance achievement in children with ASD.

Theme 3: Importance Of Structured, Predictable Learning Environments

This theme highlights how the autism preference for routine, structure, and clear rules should inform educational design a principle that directly informed the development of the "Destinasi Akhir" board game.

Table 4: Sub-themes and Frequency of Coding Under Theme 3

Sub-theme	Description	P1	P2	P3	Total References
3.1 Clear Rules and Instructions	Need for explicit, unambiguous directions	8	6	7	21
3.2 Predictable Routines	Importance of consistency and routine	6	8	5	19
3.3 Reduced Ambiguity	Avoiding open-ended or ambiguous situations	5	7	6	18
3.4 Safe Learning Spaces	Creating anxiety-free environments	4	6	5	15

Supporting Quotations:

Sub-theme 3.1: Clear Rules and Instructions

P1 (Teacher): "Arahan mesti jelas, simple, dan step-by-step. Kalau saya kata 'ambil buku dan buka page 10,' mereka boleh buat. Kalau saya kata 'sila bersedia untuk belajar,' mereka confuse sebab tidak specific. Rules dalam permainan atau aktiviti mesti sangat clear."

[Translation: "Instructions must be clear, simple, and step-by-step. If I say 'take the book and open page 10,' they can do it. If I say 'please prepare to learn,' they're confused because it's not specific. Rules in games or activities must be very clear."]

This finding validates the design approach taken in "Destinasi Akhir," where game rules were deliberately simplified and structured to accommodate autism learning preferences, as informed by Hassan et al.'s (2023) research on emotion games through the VARK model.

Theme 4: The Critical Role Of Inclusive, Multi-Sensory Educational Tools

This theme encompasses participants' perspectives on the profound need for specialized Islamic education materials and the potential impact of such innovations.

Table 5: Sub-themes and Frequency of Coding Under Theme 4

Sub-theme	Description	P1	P2	P3	Total References
4.1 Absence of Autism-Friendly Islamic Resources	Lack of appropriate materials currently available	10	12	9	31
4.2 Multi-Sensory Engagement Benefits	Value of tactile, visual, and kinesthetic elements	7	8	6	21
4.3 Game-Based Learning Potential	Board games as effective teaching platforms	8	9	7	24
4.4 Family and Community Impact	Broader social benefits beyond the child	6	10	8	24

Supporting Quotations:

Sub-theme 4.1: Absence of Autism-Friendly Islamic Resources

P3 (Counselor): "Ini masalah besar! Kita ada banyak buku agama, tapi tiada satu pun yang direka khas untuk autisme. Semua guna bahasa yang terlalu abstrak, tiada gambar yang membantu, tiada hands-on activities. Ibu bapa selalu tanya saya 'ada ke bahan yang sesuai?' dan saya terpaksa kata 'belum ada.'"

[Translation: "This is a big problem! We have many religious books, but not a single one designed specifically for autism. All use language that's too abstract, no helpful pictures, no hands-on activities. Parents always ask me 'are there suitable materials?' and I have to say 'not yet.'"]

P1 (Teacher): "Dalam pendidikan khas, kita ada banyak alat bantu mengajar untuk matematik, sains, bahasa. Tapi untuk Pendidikan Islam? Hampir tiada. Ini gap yang sangat besar dan mendesak untuk diisi."

[Translation: "In special education, we have many teaching aids for math, science, language. But for Islamic Education? Almost none. This is a very large and urgent gap to fill."]

This unanimous recognition of the resource gap validates the significance of developing "Destinasi Akhir" and aligns with Hassan et al.'s (2024) emphasis on building inclusive communities through support systems for families with autistic children.

Sub-theme 4.2: Multi-Sensory Engagement Benefits

P2 (Parent): "Anak saya belajar paling baik bila dia boleh sentuh, lihat, dan buat sendiri. Kalau hanya dengar ceramah, dia shutdown. Tapi kalau ada benda yang boleh dipegang, warna yang menarik, aktiviti yang involve physical movement, dia akan engage sepenuhnya."

[Translation: "My child learns best when he can touch, see, and do it himself. If only listening to lectures, he shuts down. But if there are things to hold, attractive colors, activities involving physical movement, he will fully engage."]

This observation is strongly supported by Hassan et al.'s (2024) research on preferred sensory modalities for learning among children with ASD, which emphasized the importance of multi-sensory approaches in educational tool design.

Sub-theme 4.3: Game-Based Learning Potential

P1 (Teacher): "Permainan papan sangat berkesan! Saya pernah guna simple board games untuk mengajar konsep lain, dan anak-anak autisme sangat responsive. Game ada struktur yang jelas, ada ganjaran yang

immediate, ada visual yang membantu. Kalau kita boleh combine game dengan pengajaran akidah, saya rasa ia akan sangat powerful."

[Translation: "Board games are very effective! I've used simple board games to teach other concepts, and autistic children are very responsive. Games have clear structure, immediate rewards, helpful visuals. If we can combine games with akidah teaching, I think it will be very powerful."]

P3 (Counselor): "Concept of gamification dalam pendidikan Islam masih baharu, tapi ia ada potential yang besar. Kanak-kanak autisme suka rules, suka predictability, suka achievement systems—semua ini ada dalam board games. Konsep pahala dan dosa pun boleh dijadikan point system yang konkrit."

[Translation: "The concept of gamification in Islamic education is still new, but it has great potential. Autistic children like rules, like predictability, like achievement systems—all of these are in board games. The concept of reward and sin can also be made into a concrete point system."]

These insights directly informed the game mechanics of "Destinasi Akhir," where the journey through different realms (Dunia, Barzakh, Mahsyar, Sirat) was structured with clear rules, visual pathways, and a point-based pahala/dosa system. This approach aligns with Hassan et al.'s (2023) successful implementation of Detective Looking Chart-Plutchik Emotion Games for ASD children through the VARK model.

Sub-theme 4.4: Family and Community Impact

P2 (Parent): "Kalau ada tool yang betul, ia bukan sahaja membantu anak saya, tapi membantu seluruh keluarga. Kami boleh belajar bersama, adik-beradik boleh join, nenek boleh ajar cucu. Ini akan wujudkan family bonding sambil belajar agama. Dan bila community nampak anak autisme boleh belajar agama, stigma akan berkurang."

[Translation: "If there are the right tools, it doesn't just help my child, but helps the whole family. We can learn together, siblings can join, grandparents can teach grandchildren. This will create family bonding while learning religion. And when the community sees autistic children can learn religion, stigma will decrease."]

P3 (Counselor): "Impact jangka panjang sangat besar. Bila kita berjaya ajar akidah kepada kanak-kanak autisme dengan cara yang sesuai, kita sedang melahirkan Muslim yang faham agama dengan baik, walaupun mereka berbeza. Ini akan ubah perception masyarakat tentang autisme dan agama. Ia juga akan beri harapan kepada ibu bapa bahawa anak mereka boleh menjadi Muslim yang soleh juga."

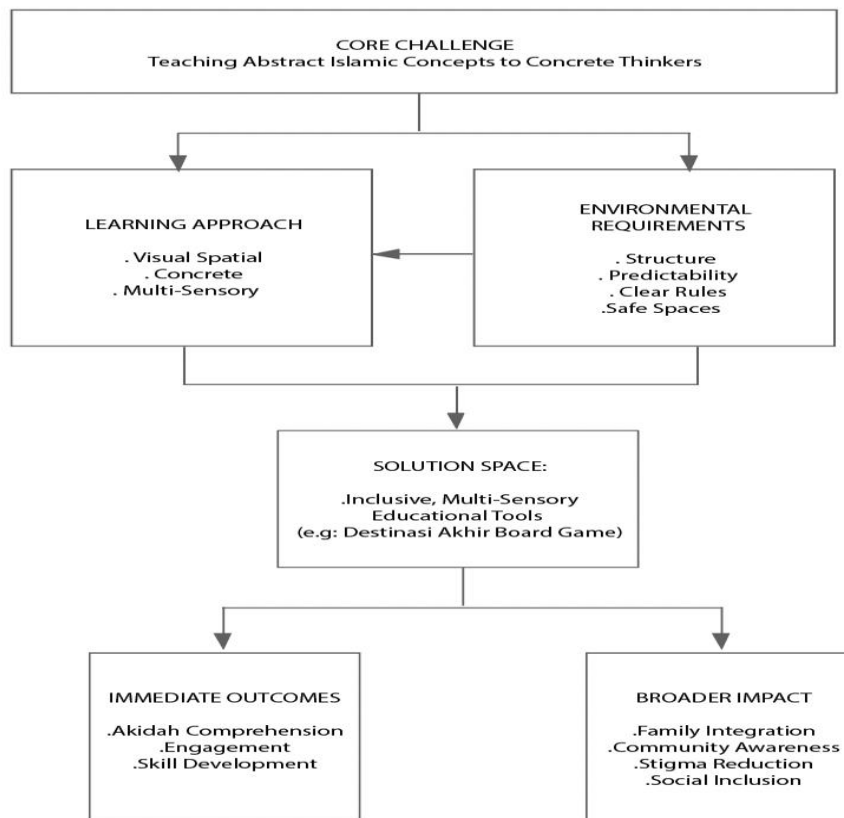
[Translation: "The long-term impact is very large. When we successfully teach akidah to autistic children in appropriate ways, we are producing Muslims who understand religion well, even though they are different. This will change society's perception about autism and religion. It will also give hope to parents that their children can also become pious Muslims."]

This perspective validates the broader significance of "Destinasi Akhir" beyond educational outcomes, aligning with the Sustainable Development Goal 4 on inclusive quality education and Hassan et al.'s (2024) research on building inclusive communities for families with autistic children.

Cross-Cutting Themes: Integration of Findings

The four major themes reveal interconnected patterns that collectively inform the development of autism-friendly Islamic education innovations. Figure 1 presents a conceptual model showing how these themes interact to create a comprehensive framework for educational tool development.

Figure 1: Integrated Thematic Framework for Autism-Friendly Islamic Education



This integrated framework demonstrates how the identified challenges necessitate specific learning approaches within carefully designed environments, leading to the development of targeted educational tools that generate both immediate learning outcomes and broader social impacts.

Additional Findings: Design Implications for "Destinasi Akhir"

The thematic analysis yielded specific design recommendations that directly informed the development of the "Destinasi Akhir" board game. Table 6 summarizes these recommendations mapped to game features.

Table 6: Stakeholder Recommendations and Corresponding Game Features

Recommendation from Stakeholders	Implementation in Destinasi Akhir	Supporting Theme
Use color-coding system	Distinct colors for different realms (Dunia, Barzakh, Mahsyar, Sirat)	Theme 2.4
Provide tangible game pieces	Physical roles (characters), dadu (dice), cards	Theme 2.2
Create visual journey map	Large A3 board showing clear pathway through realms	Theme 2.3
Establish clear rules	Simple, explicit game instructions; color-coded action squares	Theme 3.1, 3.3
Include point system	Concrete pahala/dosa cards with numerical values	Theme 1.4, 2.2
Offer multi-sensory engagement	Tactile cards, visual board, kinesthetic movement	Theme 4.2

Enable family participation	2-4 player capacity; suitable for mixed ages	Theme 4.4
Provide immediate feedback	Instant consequences through card drawing and point tallying	Theme 3.1

Validation of Conceptual Framework

The findings validate the conceptual framework proposed in Section 2.8, demonstrating that the INPUT → PROCESS → OUTPUT model effectively captures the development pathway for autism-friendly Islamic education innovations. Specifically:

INPUT Validation:

- Participant responses confirmed the unique autism learning characteristics (visual-spatial preference, concrete thinking, need for structure)
- Islamic education requirements were articulated as teaching akidah concepts in accessible ways
- Stakeholder perspectives highlighted the gap between current resources and needs
- Cultural context emerged as crucial, with emphasis on Malaysian Muslim values and community expectations

PROCESS Validation:

- Visual-spatial design was unanimously endorsed as essential (Theme 2)
- Game-based learning mechanics were viewed as highly appropriate (Theme 4.3)
- UDL principles were implicitly recognized through calls for multi-sensory, flexible approaches
- Evidence-based autism strategies (structure, predictability, visual supports) were consistently recommended (Theme 3)

OUTPUT Validation:

- Participants articulated expected outcomes including improved akidah comprehension, enhanced social skills through turn-taking, increased engagement compared to traditional methods, family empowerment through shared learning, and inclusive Muslim community through reduced stigma

These validated components demonstrate that the theoretical framework appropriately guided the research and can serve as a foundation for future development of similar educational innovations.

DISCUSSION

Interpretation of Findings

This preliminary qualitative study provides crucial insights into the challenges and opportunities in teaching Islamic faith to autistic Muslim children. The four major themes that emerged paint a comprehensive picture of the current landscape and inform the path forward for innovation in this underserved domain.

The Challenge of Abstract Concepts

The most prominent finding the difficulty of teaching abstract Islamic concepts to concrete-thinking autistic children represents a fundamental pedagogical challenge that has received insufficient attention in both Islamic education and autism research literature. While Hassan et al.'s (2024) research demonstrated that visual-spatial

abilities can serve as mediators for communication development, this study extends that understanding to the domain of theological education, revealing that the same principles apply to religious concept acquisition.

The specific manifestation of this challenge literal interpretation of metaphorical language, inability to grasp invisible entities, and difficulty with temporal concepts has profound implications for curriculum development. Traditional Islamic pedagogy, with its rich use of metaphor and abstract reasoning, must be fundamentally reimagined for neurodivergent learners. This does not mean "dumbing down" the content, but rather translating it into alternative representational systems that honor both the complexity of Islamic theology and the cognitive processing styles of autistic learners.

Visual-Spatial Learning as Solution

The strong consensus around visual-spatial learning approaches validates the theoretical foundation of this research and aligns with Hassan et al.'s (2023) findings on designing visual teaching tools for ASD children. However, this study reveals new dimensions of how visual-spatial approaches must be applied in religious education contexts:

1. **Sequential Visualization:** The concept of mapping theological progression (life → death → afterlife → judgment → eternal destination) onto spatial pathways resonates powerfully with autism preference for sequential, ordered information. This finding directly informed the linear progression design of the "Destinasi Akhir" board game.
2. **Concrete Symbolism:** The use of tangible objects (cards, game pieces, point tokens) to represent intangible concepts (pahala, dosa, spiritual states) emerged as a critical bridge between abstract theology and concrete comprehension. This extends Zulkefli and Rabi's (2018, 2021) work on computer-mediated communication for autism by demonstrating that low-tech, tactile solutions can be equally or more effective for certain learning objectives.
3. **Color-Coded Meaning:** Participants' emphasis on color coding aligns with Hassan et al.'s (2024) research on sensory modalities, suggesting that visual discrimination through color provides an accessible entry point for concept differentiation.

Structure and Predictability

The findings regarding structured, predictable learning environments echo established autism research but reveal specific applications for religious education. The anxiety-reducing effect of clear rules and consistent routines takes on added significance in the context of faith learning, where misconceptions can have long-term implications for religious identity development.

Interestingly, this study found that the structured nature of game-based learning actually makes it more not less suitable for teaching nuanced religious concepts to autistic children. The "safe space" created by game mechanics allows for exploration of complex ideas (What happens if I choose dosa over pahala?) without real-world consequences, facilitating moral reasoning development in a developmentally appropriate way.

The Resource Gap

Perhaps the most striking finding is the unanimous recognition of a critical gap in autism-friendly Islamic education resources. While this gap is not entirely surprising given the specialized nature of the need, the depth of frustration expressed by participants underscores the urgency of addressing it. This finding has important implications for:

1. **Policy Development:** Educational authorities and Islamic institutions should prioritize the development of inclusive religious education curricula and materials.

2. **Teacher Training:** Special education programs should include modules on adapting religious education for diverse learners, and Islamic education programs should include disability awareness components.
3. **Research Priorities:** The academic community should recognize autism-friendly religious education as a legitimate and important research domain worthy of systematic investigation.

Comparison with Existing Literature

Alignment with Autism Research

This study's findings align strongly with established autism research on learning preferences and effective pedagogical approaches. The emphasis on visual-spatial learning echoes Hassan et al.'s (2024) PhD research demonstrating that visual-spatial abilities mediate speech utterance development in ASD children. The recognition of structure and predictability as essential environmental features aligns with decades of autism education research.

However, this study extends existing knowledge by demonstrating that these principles apply equally perhaps even more critically in the domain of abstract religious concept acquisition. Where previous research has focused primarily on academic subjects or functional skills, this study reveals that theological education presents unique challenges that require specifically tailored adaptations.

Contribution to Islamic Education Literature

Within Islamic education literature, this study addresses a significant gap. Traditional Islamic pedagogy emphasizes memorization, oral recitation, and teacher-centered instruction approaches that, as this study confirms, are often ineffective for autistic learners. By demonstrating the need for and feasibility of alternative approaches, this research contributes to a nascent but growing body of work on inclusive Islamic education.

The study's finding that game-based learning can be an effective vehicle for Islamic education represents a potentially significant shift in pedagogical thinking. While games have been used extensively in secular education and increasingly in Christian religious education, their application in Islamic contexts has been limited, particularly for special needs populations.

Integration with UDL Framework

The study's findings provide strong support for applying Universal Design for Learning (UDL) principles to Islamic education. The three UDL principles multiple means of representation, expression, and engagement are implicitly endorsed through participants' calls for visual supports (representation), hands-on activities (expression), and game-based learning (engagement).

Importantly, this study suggests that UDL is not simply a "nice to have" accommodation for special needs learners, but rather represents good pedagogy that benefits all learners. Several participants noted that teaching strategies developed for autistic children often enhanced learning for neurotypical siblings and classmates as well, supporting the UDL contention that designing for the margins benefits the center.

Implications for Practice

For Educators

The findings of this study have several practical implications for Islamic educators working with autistic students:

1. **Adopt Visual-First Instruction:** Rather than treating visual supports as supplementary aids, educators should design instruction with visual representation as the primary mode, adding verbal explanation as enhancement.

2. **Provide Concrete Examples:** Abstract concepts should always be accompanied by concrete examples, tangible representations, or real-world applications. For instance, teaching about pahala could involve a token system where students accumulate physical tokens for good deeds.
3. **Establish Clear Structures:** Lesson plans should include explicit routines, clear expectations, and predictable sequences. The use of visual schedules showing the lesson flow can significantly reduce anxiety and increase engagement.
4. **Incorporate Multi-Sensory Learning:** Lessons should engage multiple senses through tactile materials, visual demonstrations, kinesthetic activities, and auditory components, allowing students to access information through their preferred modalities (Hassan et al., 2024).

For Parents and Families

This study's findings offer guidance for Muslim families supporting autistic children's religious education:

1. **Home Learning Strategies:** The emphasis on visual-spatial approaches can be applied in home settings through picture books about Islamic concepts, illustrated prayer guides, visual schedules for religious routines, and hands-on activities (crafts, cooking) that incorporate religious themes.
2. **Family Engagement:** The potential for games and hands-on activities to facilitate family learning suggests that parents should seek out or create opportunities for whole-family religious education that accommodates the autistic child's learning style while including siblings and extended family.
3. **Advocacy:** Parents should feel empowered to advocate for appropriate accommodations in mosque programs, Sunday schools, or other religious education settings, using the findings from this study to articulate specific needs and evidence-based solutions.

For Curriculum Developers and Material Designers

The study provides clear guidance for those developing Islamic education resources for autistic learners:

1. **Design Principles:** Materials should incorporate clear visual hierarchies, consistent color coding, step-by-step instructions with visual supports, tactile/manipulable elements, and concrete representations of abstract concepts.
2. **Content Adaptation:** Traditional Islamic education content needs systematic review and adaptation to identify potentially problematic metaphors or abstract language, develop concrete alternative explanations, create visual representations of key concepts, and design hands-on activities to reinforce learning.
3. **Quality Criteria:** Autism-friendly Islamic education materials should be evaluated based on visual clarity and appeal, conceptual accessibility without oversimplification, cultural and religious authenticity, flexibility for diverse learners, and potential for family engagement.

Implications for Theory

This study contributes to theoretical understanding in several ways:

Integration of Learning Theories

The study demonstrates how Visual-Spatial Learning Theory, the Communication Enrichment Model (ICEM), Universal Design for Learning (UDL), and Constructivist Learning Theory can be productively integrated in the specific context of autism-friendly religious education. This integration suggests that complex learning challenges—such as teaching abstract theological concepts to concrete-thinking autistic children—require multi-theoretical frameworks that draw on diverse scholarly traditions.

Extension of Existing Models

Hassan et al.'s (2024) Visual-Spatial Mediated Model of Speech Fluency in ASD Children (i-VSM) is extended by this study to encompass concept acquisition in addition to communication development. The finding that visual-spatial approaches facilitate not only speech utterance but also comprehension of complex abstract ideas suggests broader applicability of the i-VSM model than originally proposed.

Development of New Framework

This study's integrated thematic framework (Figure 1) represents a preliminary theoretical model for understanding and addressing challenges in autism-friendly religious education. This framework could be tested and refined in future research, potentially leading to a more comprehensive theory of inclusive religious pedagogy.

Addressing the Research Questions

Returning to the research questions posed in Section 1.4, this study provides the following answers:

RQ1: What are the primary challenges? The primary challenges include the abstract nature of Islamic theological concepts (Theme 1), the gap between traditional verbal-heavy pedagogy and autistic children's visual-spatial learning preferences (Theme 2), the need for structure and predictability that is often lacking in traditional religious education settings (Theme 3), and the absence of appropriate, autism-friendly Islamic education resources (Theme 4).

RQ2: What approaches are most effective? Visual-spatial learning approaches emerged as most effective, specifically sequential visual mapping, concrete representations of abstract concepts, color-coding and symbolic systems, multi-sensory engagement, structured, game-based learning with clear rules, immediate feedback systems, and family-inclusive activities.

RQ3: What features should be incorporated? Educational tools should incorporate large, clear visual elements, tactile, manipulable components, color-coded information systems, step-by-step progression indicators, concrete representation of abstract concepts (e.g., point systems for pahala/dosa), clear, explicit rules and instructions, opportunities for repetition and practice, and capacity for family/group use.

RQ4: How is game-based learning perceived? Game-based learning is perceived extremely positively, with participants viewing it as ideally suited to autistic learning preferences. The structured nature of games, provision of clear rules and predictable outcomes, immediate feedback mechanisms, concrete reward systems, safe spaces for learning through trial and error, and opportunities for social interaction in structured contexts were all seen as beneficial features.

Development of "Destinasi Akhir": From Theory to Practice

The findings of this preliminary study directly informed the development of the "Destinasi Akhir" board game in specific, concrete ways:

Visual-Spatial Design

- Large A3 board provides clear spatial mapping of the journey through four realms
- Each realm (Dunia, Barzakh, Mahsyar, Sirat) is visually distinct with unique colors and imagery
- Sequential progression is clear and unambiguous

Concrete Representation

- Abstract concept of pahala/dosa translated into tangible point cards

- Spiritual journey represented by physical movement of game pieces
- Afterlife destinations (syurga/neraka) represented by specific end spaces on the board

Structure and Rules

- Simple, explicit game mechanics: roll dice, move piece, follow instructions
- Color-coded squares indicate different actions (draw card, miss turn, advance)
- Clear win condition: highest point total after all players reach the end

Multi-Sensory Engagement

- Visual: colorful board and card designs
- Tactile: physical game pieces, cards, dice
- Kinesthetic: movement of pieces, handling of materials
- Auditory: verbal interaction during play (optional, not required)

Inclusivity

- 2-4 players accommodate various group sizes
- Suitable for mixed ages (7-17 years target, but adaptable)
- Can include neurotypical siblings/family members
- Rules can be modified for different functioning levels

This direct translation of research findings into product design demonstrates the practical utility of qualitative research in informing innovation development.

CONCLUSION

This preliminary qualitative study explored the perspectives of three key stakeholders a special education teacher, a parent of an autistic child, and an Islamic counsellor regarding the challenges and opportunities in teaching Islamic faith (akidah) to autistic Muslim children in Malaysia. Through thematic analysis of semi-structured interviews, four major themes emerged: (1) significant challenges in teaching abstract Islamic concepts to concrete-thinking autistic children, (2) the critical need for visual-spatial and concrete learning approaches as primary instructional modes, (3) the importance of structured, predictable learning environments with clear rules, and (4) a critical gap in inclusive, multi-sensory Islamic education tools. These findings validate the urgent need for evidence-based, autism-friendly Islamic education innovations and directly informed the development of "Destinasi Akhir," a visual-spatial board game that integrates Universal Design for Learning (UDL) principles with Islamic theology education. The study contributes to autism research by extending understanding of visual-spatial learning from communication development to religious concept acquisition (Hassan et al., 2024), addresses a significant gap in inclusive Islamic pedagogy research, and provides actionable guidance for educators, parents, curriculum developers, and policymakers in creating truly inclusive religious education environments.

Despite its limitations including small sample size (n=3), geographic specificity to Klang Valley, and cross-sectional design this study represents an important first step in addressing an underserved domain at the intersection of autism education and Islamic studies. The convergence of perspectives from diverse stakeholders provides strong validation for innovations that leverage autistic children's visual-spatial strengths while respecting their concrete thinking patterns and need for structure. As one parent participant powerfully

stated: "Anak saya juga Muslim. Dia juga berhak untuk memahami agama dengan cara yang sesuai untuk dia" ["My child is also Muslim. He also has the right to understand religion in a way that is suitable for him"]. This fundamental principle—that all Muslim children, regardless of neurodevelopmental differences, have the right to religious education delivered in accessible ways—should guide future research and practice. Further studies with larger, more diverse samples, efficacy trials of the "Destinasi Akhir" intervention, and implementation research examining adoption barriers and facilitators are recommended to build upon these preliminary findings and promote systematic change across educational institutions, Islamic organizations, and Muslim communities toward truly inclusive religious education for neurodivergent learners.

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