

ONLINE RUQYAH AS A SOURCE OF NON FORMAL RELIGIOUS LEARNING: A SOSIOEDUCATIONAL ANALYSIS

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ABSTRACT

The rapid expansion of digital media has transformed religious communication, enabling spiritual guidance to extend beyond formal educational settings. This study examines online ruqyah as a source of nonformal religious learning and analyzes its socioeducational implications for participants' religious literacy. A descriptive qualitative approach within an interpretative paradigm was employed by analyzing eleven ruqyah sessions from the Ruqyah Aswaja TV YouTube channel. Data were collected through documentation and non-participant observation, followed by transcription and thematic analysis. The findings indicate that online ruqyah functions as a multidimensional learning environment where religious knowledge, practices, and values are transmitted through digitally mediated interaction. Participants develop theological understanding, practical religious skills, emotional engagement, and reflective awareness through guided participation and repeated exposure. The accessibility of digital platforms also supports voluntary and self-directed learning. This study contributes to digital religion and nonformal education by demonstrating that ritual-based practices can operate as structured learning environments, highlighting the role of online religious content in enhancing religious literacy in contemporary Muslim societies.

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INTRODUCTION

Language functions as a primary medium of social interaction that enables not only the transmission of information but also the construction of meaning, values, and knowledge within communities. In educational contexts, language plays an important role in shaping learners' understanding, attitudes, and religious literacy. Religious discourse such as prayers, advice, ritual guidance, and moral instruction can function as a form of informal religious education that facilitates the internalization of religious values. In contemporary Muslim societies, such discourse increasingly occurs beyond formal institutions and is mediated through digital platforms, allowing broader public access to religious knowledge and guidance (Mustakim et al., 2021; Moderatio, 2023).

The development of digital media has transformed religious communication practices. Platforms such as YouTube enable religious knowledge to be disseminated widely, crossing geographical boundaries and reaching diverse audiences. As a result, digital religious content has become an important source of nonformal religious learning outside institutional settings. Previous studies show that digital da'wah and online religious communication can facilitate self-directed learning, shape religious understanding, and influence attitudes and practices (Ummah, 2020; Hidayatullah, 2019; Samsudin & Putri, 2023; Sulfika, 2021). In Indonesia, such content also reinforces social values, moral norms, and communal identity while enhancing religious literacy through accessible explanations and practical guidance (Mutmainnah et al., 2021; Aulia & Arifin, 2023; Oftaviani & Negoro, 2022).

One form of religious practice that has gained increasing visibility on digital platforms is *ruqyah*, a spiritual healing practice rooted in Islamic tradition. Although commonly associated with therapy, ruqyah sessions often include explanations of faith, moral conduct, and religious obligations, thereby embedding elements of religious instruction. When disseminated through digital platforms such as YouTube, ruqyah extends beyond therapeutic contexts and becomes accessible to wider audiences as a potential learning resource. Digital religious practices have been shown to expand the reach of religious instruction and support community-based learning beyond formal educational environments (Kahfi, 2025; Choliq, 2018).

However, despite the growing body of research on digital da'wah and online religious learning, studies tend to focus primarily on sermons, lectures, or structured religious programs. Limited attention has been given to examining ruqyah as a form of nonformal religious learning, particularly within digital environments where its educational dimensions may be less explicitly recognized. This gap is significant given the increasing popularity of online ruqyah content, such as channels managed by Jam'iyah Ruqyah Ahlussunah Waljamaah (JRA), which attract large audiences and may influence religious literacy and understanding in subtle but meaningful ways.

Therefore, this study aims to analyze online ruqyah not only as a spiritual healing practice but also as a source of nonformal religious learning. Specifically, this research examines how ruqyah content on YouTube functions as a socioeducational medium that shapes participants' religious literacy and understanding. By adopting a socioeducational perspective, this study is expected to contribute to the discourse on digital religion, informal education, and religious literacy development, as well as to provide insights into the role of online religious practices in contemporary Muslim societies.

METHOD

Research Approach and Design

This study employed a descriptive qualitative approach within an interpretative paradigm to explore online ruqyah as a source of nonformal religious learning and its socioeducational implications. This approach enables an in-depth understanding of meaning construction, learning experiences, and value internalization in natural contexts, with the researcher acting as the primary instrument (Creswell & Poth, 2021; Moleong, 2021). Qualitative methods are particularly suitable for examining informal and digitally mediated learning processes (Imran et al., 2025).

Theoretical Framework

The study is grounded in a socioeducational perspective on nonformal learning, supported by pragmatics and sociolinguistics. The socioeducational approach explains how religious knowledge and values are transmitted through digital interaction. Pragmatics is used to interpret meaning based on context and speaker intention, while sociolinguistics examines language as a medium for conveying religious values and shaping spiritual understanding (Mahsun, 2021; Hasan & Inayati, 2025).

Data and Data Sources

Data were obtained from ruqyah videos uploaded on the YouTube channel *Ruqyah Aswaja TV* managed by Jam'iyah Ruqyah Ahlussunah Waljamaah (JRA). The data consist of verbal interactions containing educational elements such as Qur'anic recitations, prayers, moral advice, and religious explanations. Data were selected purposively based on relevance, clarity, duration, and interaction intensity to ensure representativeness (Wahyuni et al., 2025; Tracy, 2022).

Data Collection Techniques

Data collection was conducted through documentation and non-participant observation. Selected videos were observed repeatedly, and relevant segments were transcribed verbatim to maintain accuracy and preserve contextual meaning. This method allows the researcher to capture authentic interactions without interfering with the natural learning process (Mahsun, 2021; Sugiyono, 2022).

Data Analysis Techniques

Data were analyzed using an interactive model consisting of data reduction, data display, and conclusion drawing (Miles et al., 2020). Relevant data were categorized into themes such as religious knowledge transmission, moral instruction, spiritual guidance, and experiential learning. Findings were interpreted inductively by linking empirical data with socioeducational theory and digital religious communication.

Trustworthiness of the Data

Trustworthiness was ensured through repeated observation and theoretical triangulation. Data interpretations were compared across socioeducational, pragmatic, and religiolinguistic perspectives to enhance credibility and analytical consistency (Creswell & Poth, 2021; Sugiyono, 2022).

RESULT AND DISCUSSION

Result

The findings of this study are derived from an analysis of online ruqyah sessions conducted by Jam'iyyah Ruqyah Ahlussunah Waljamaah (JRA) and broadcast through the Ruqyah Aswaja TV YouTube channel. The data were obtained from eleven videos uploaded between January and December 2021. Rather than focusing solely on linguistic structures, the analysis examines how online ruqyah functions as a source of nonformal religious learning and how it contributes to participants' religious literacy through digitally mediated interaction. Religious literacy in this study refers to participants' understanding, practice, experience, and internalization of religious values shaped through exposure to online religious content.

Online Ruqyah as a Nonformal Religious Learning Process

The analysis indicates that online ruqyah sessions provide structured yet informal opportunities for religious learning. During the sessions, practitioners deliver Qur'anic recitations, explanations of Islamic beliefs, moral guidance, ritual instructions, and motivational messages. These elements collectively create a learning environment in which participants acquire religious knowledge and practices through observation and guided participation. Such learning occurs outside formal educational institutions, aligning with the characteristics of nonformal education as voluntary, context-based, and experience-oriented.

Research on digital da'wah in Indonesia shows that online religious content increasingly serves as an alternative learning space where audiences independently seek religious knowledge and guidance (Ummah, 2020; Samsudin & Putri, 2023). Similarly, studies on religious communication through social media demonstrate that digital platforms facilitate knowledge dissemination, emotional engagement, and behavioral influence among audiences (Hidayatullah, 2019; Choliq, 2018). The accessibility of YouTube allows individuals to repeatedly access ruqyah sessions, thereby reinforcing learning through repetition and reflection.

Educational Dimensions of Online Ruqyah

Online ruqyah sessions emphasize theological concepts such as tawhid, reliance on God, and the rejection of supernatural beliefs inconsistent with Islamic teachings. Practitioners frequently explain that healing originates from divine power rather than human ability, encouraging participants to reinterpret illness from a spiritual perspective. This process contributes to cognitive aspects of religious literacy by strengthening doctrinal understanding. Previous research on digital religious programs indicates that exposure to online preaching and religious instruction can significantly enhance audiences' knowledge of Islamic teachings (Oftaviani & Negoro, 2022).

Participants are guided to perform specific religious practices during the sessions, including dhikr, prayer recitation, and behavioral discipline. These instructions transform passive viewing into participatory learning. The

real-time guidance enables participants to learn ritual practices experientially rather than through theoretical explanation. Studies on digital religious engagement show that online platforms can influence religious behavior by providing practical demonstrations and step-by-step guidance (Kahfi, 2025).

Emotional responses such as calmness, surrender, crying, or relief frequently appear during ruqyah sessions. These responses suggest that participants experience not only cognitive learning but also affective transformation. Emotional engagement plays a crucial role in nonformal religious learning because it strengthens personal meaning and spiritual awareness. Research on audiences' reception of religious messages through social media confirms that emotional involvement enhances message retention and religious commitment (Sulfika, 2021).

Repeated exposure to ruqyah content encourages participants to reflect on their faith, behavior, and relationship with God. This reflective process leads to gradual internalization of religious values, which represents the highest level of religious literacy. Studies on digital media literacy indicate that online religious content can shape attitudes and moral perspectives by integrating knowledge with emotional and experiential dimensions (Mutmainnah et al., 2021).

The findings demonstrate that online ruqyah functions as a multidimensional learning environment encompassing cognitive, behavioral, affective, and reflective components. These components interact to support participants' religious literacy development. The educational mechanisms observed in the data are summarized in Table 1.

Table 1. Online Ruqyah as Nonformal Religious Learning

No	Learning Dimension	Example of Activity	Educational Function	Implications for Religious Literacy
1	Religious understanding	Explanation of tawhid	Cognitive learning	Strengthened theological knowledge
2	Religious practice	Guided dhikr and prayer	Experiential learning	Improved ritual competence
3	Religious experience	Emotional responses	Affective learning	Enhanced spiritual awareness
4	Value internalization	Reflection on faith	Transformative learning	Development of religious commitment

Source: Data analysis of online ruqyah sessions (JRA YouTube channel), 2026.

The table shows that online ruqyah sessions operate as pedagogical mechanisms that facilitate comprehensive religious learning rather than merely ritual performance.

Discussion

Online Ruqyah as a Form of Nonformal Religious Education

The findings demonstrate that online ruqyah sessions function as a structured yet informal educational process in which religious knowledge is transmitted through ritual practice rather than conventional instruction. Unlike formal religious education that relies on curriculum, institutional authority, and systematic pedagogy, online ruqyah operates through experiential learning, observation, and guided participation. Participants acquire religious understanding by following the practitioner's recitations, explanations, and instructions, transforming the ritual into a learning environment embedded within spiritual healing.

This phenomenon reflects the characteristics of nonformal education, which emphasizes flexibility, voluntariness, and context-based learning outside formal institutions. Digital da'wah studies in Indonesia indicate that social media platforms increasingly serve as alternative spaces for religious education where individuals independently seek guidance according to personal needs (Ummah, 2020; Samsudin & Putri, 2023). In this context, YouTube-based ruqyah allows participants to access religious instruction without temporal or spatial constraints, enabling repeated engagement that reinforces learning outcomes. The asynchronous nature of digital media also supports self-paced learning, allowing viewers to pause, replay, or selectively engage with content according to their comprehension and emotional readiness.

Furthermore, the practitioner's role extends beyond healer to educator, spiritual guide, and moral authority. This multidimensional role aligns with research on digital religious communication, which highlights how religious figures on social media influence audiences' beliefs and practices through perceived legitimacy and authenticity (Hidayatullah, 2019; Sadik et al., 2025; Campbell & Vitullo, 2016; Bunt, 2018). Thus, online ruqyah represents a hybrid form of religious education combining therapeutic, instructional, and persuasive elements.

Cognitive Dimension: Strengthening Religious Understanding

One of the most significant educational outcomes observed is the enhancement of participants' theological understanding, particularly regarding tawhid, divine agency, and Islamic perspectives on illness. Practitioners consistently emphasize that healing originates from God, thereby reframing participants' interpretations of suffering from purely medical or supernatural explanations toward a theocentric worldview. This cognitive restructuring contributes to religious literacy by aligning personal experiences with doctrinal teachings.

Exposure to religious explanations delivered in accessible language supports knowledge acquisition among audiences with diverse educational backgrounds. Research on digital religious programs indicates that online preaching and religious broadcasts significantly improve viewers' understanding of Islamic teachings and religious obligations (Oftaviani & Negoro, 2022; Wahyuni & Harahap, 2023; Jaya et al., 2025). In the context of ruqyah, theological instruction is embedded within ritual discourse, making learning more contextualized and meaningful. Rather than abstract doctrinal teaching, participants encounter religious concepts directly connected to their lived experiences, which enhances comprehension and retention.

Behavioral Dimension: Experiential Learning of Religious Practice

Online ruqyah also facilitates the acquisition of practical religious skills. Participants are instructed to perform specific actions such as reciting prayers, maintaining concentration, avoiding distractions, and adhering to prescribed ritual procedures. These instructions transform passive spectators into active participants, creating a participatory learning environment despite physical distance.

Experiential learning theory suggests that knowledge is constructed through direct involvement in activities rather than passive reception of information. Digital preaching research confirms that step-by-step demonstrations and real-time guidance on social media platforms can influence audiences' religious behavior by modeling appropriate practices (Kahfi, 2025). The interactive nature of ruqyah sessions, even when mediated through video, enables viewers to replicate practices independently, thereby reinforcing behavioral aspects of religious literacy.

Moreover, repeated engagement with ruqyah content may lead to habit formation. Participants who regularly follow sessions may incorporate recommended practices into daily routines, indicating that nonformal learning can extend beyond the viewing context into everyday life.

Affective Dimension: Emotional Engagement and Spiritual Experience

Emotional responses constitute a central component of the learning process observed in online ruqyah. Participants frequently display signs of calmness, surrender, relief, or emotional release, suggesting that the ritual facilitates affective transformation alongside cognitive learning. Emotional engagement enhances the perceived authenticity of the experience and strengthens the internalization of religious messages.

Studies on audience reception of religious content on social media indicate that emotional involvement plays a crucial role in shaping attitudes and reinforcing commitment to religious practices (Sulfika, 2021). In the context of ruqyah, emotional responses are not incidental but integral to the ritual's pedagogical function. They create a sense of personal connection with religious teachings, making abstract concepts such as divine mercy or spiritual purification experientially tangible.

Additionally, shared emotional experiences may foster a sense of belonging to a virtual religious community. Viewers often interpret their experiences as similar to those of others, reinforcing collective identity and shared belief systems despite the absence of physical interaction.

Reflective Dimension: Internalization of Religious Values

The findings further reveal that online ruqyah encourages participants to engage in self-reflection regarding their faith, behavior, and spiritual condition. Practitioners frequently deliver moral advice urging repentance, sincerity, and reliance on God, prompting viewers to evaluate their personal lives. This reflective process represents the highest level of learning, where knowledge and experience are integrated into enduring attitudes and values.

Research on media literacy and religious communication suggests that repeated exposure to value-laden content can shape moral perspectives and decision-making processes (Mutmainnah et al., 2021). In online ruqyah, reflection is reinforced through repetition of key messages across multiple sessions, creating cumulative learning effects. Participants gradually internalize religious norms and develop stronger commitment to religious practices.

This transformative dimension distinguishes ruqyah from purely informational religious content. The integration of cognitive, behavioral, and emotional elements produces holistic learning that addresses the individual's spiritual and psychological needs simultaneously.

Socioeducational Implications in the Digital Era

From a broader perspective, online ruqyah contributes to the emergence of digitally mediated religious learning communities. Participants access the same content, share experiences through comment sections, and recommend videos to others, thereby creating networks of informal learning. Such dynamics illustrate how digital platforms enable the decentralization of religious education, allowing knowledge to circulate beyond institutional control.

Studies on digital religion highlight that online environments facilitate participatory culture in which audiences are not merely consumers but also co-constructors of meaning (Mustakim et al., 2021; Moderatio, 2023). Online ruqyah exemplifies this process, as participants interpret teachings according to personal contexts and may integrate them into family or community practices.

Furthermore, the accessibility of digital platforms democratizes religious learning by reaching individuals who may lack access to formal religious education. This inclusivity enhances the social function of ruqyah as both spiritual support and educational resource, particularly for marginalized or geographically isolated populations.

Integration of Healing and Education

A distinctive contribution of this study is the identification of ruqyah as a hybrid practice that simultaneously addresses health concerns and educational needs. Spiritual healing becomes a gateway to religious learning, as participants seek not only relief from distress but also guidance for leading a pious life. This dual function expands the conceptualization of religious education to include therapeutic contexts. Research on religious communication through social media demonstrates that digital preaching often combines doctrinal teaching with counseling and motivational discourse (Choliq, 2018; Fajrussalam, 2024; Faizah, 2024). Online ruqyah intensifies this integration by embedding instruction within ritual performance, making learning inseparable from spiritual experience.

Overall, the findings indicate that online ruqyah supports the development of religious literacy through four interrelated pathways: (1) Cognitive understanding of religious teachings, (2) Behavioral acquisition of religious practices, (3) Emotional engagement and spiritual awareness, (4) Reflective internalization of values. These pathways correspond to multidimensional models of literacy that encompass knowledge, skills, attitudes, and dispositions. By addressing all dimensions simultaneously, online ruqyah demonstrates significant educational potential as a nonformal learning resource in contemporary Muslim societies.

CONCLUSION

This study shows that online ruqyah disseminated through YouTube can function not only as a spiritual healing practice but also as a source of nonformal religious learning. The findings indicate that ruqyah sessions provide learning experiences that support the development of religious literacy across cognitive, behavioral, affective, and reflective dimensions through exposure to religious discourse and guided practices. From a socioeducational perspective, online ruqyah illustrates how religious learning can occur beyond formal institutions through digitally mediated interaction and voluntary participation. The accessibility of digital platforms enables broader engagement and supports the integration of spiritual guidance with value-based learning.

The main contribution of this study lies in demonstrating that ritual-based practices, when mediated through digital platforms, can operate as structured learning environments within the context of nonformal education. This finding extends the discourse on digital religion by highlighting the educational potential of online religious practices. Future research is recommended to explore participants' perspectives and examine the long-term impact of online ruqyah on religious attitudes and behavior across diverse contexts.

REFERECES

- Aulia, R., & Arifin, Z. (2023). Moderasi beragama dalam ruang digital: Studi harmonisasi moderasi beragama di perguruan tinggi keagamaan Islam negeri. *Moderatio: Jurnal Moderasi Beragama*, 3(2), 205–217. <https://doi.org/10.32332/moderatio.v3i2.8105>
- Bunt, G. R. (2018). *Hashtag Islam: How cyber-Islamic environments are transforming religious authority*. UNC Press.
- Campbell, H. A., & Vitullo, A. (2016). Assessing changes in the study of religious communities in digital religion studies. *Church, Communication and Culture*, 1(1), 73–89. <https://doi.org/10.1080/23753234.2016.1181301>
- Choliq, A. (2018). Dakwah melalui media sosial Facebook. *Jurnal Dakwah Tabligh*, 16(2), 170–187. <https://doi.org/10.24252/jdt.v16i2.6118>
- Creswell, J. W., & Poth, C. N. (2021). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
- Faizah, R. (2024). Peran media sosial dalam meningkatkan pemahaman agama Islam di kalangan generasi milenial. *MUMTAZ: Jurnal Pendidikan Agama Islam*, 4(1), 38–52. <https://doi.org/10.69552/mumtaz.v4i1.2889>
- Fajrussalam, H. (2024). Pengaruh media sosial terhadap peningkatan pemahaman agama Islam di kalangan generasi Z. *Jurnal Ilmiah Wahana Pendidikan*, 10(5), 123–130. <https://doi.org/10.5281/zenodo.10534742>
- Hasan, F., & Inayati, N. L. (2025). Efforts of tahfizh teachers in improving students' ability to memorize the Quran. *Journal of Educational Sciences*, 9(4), 3157–3170. <https://doi.org/10.31258/jes.9.4.p.3157-3170>
- Hidayatullah, A. (2019). Inklusifitas dakwah akun @NUgarislucu di media sosial. *Islamic Communication Journal*, 4(2), 183–196. <https://doi.org/10.21580/icj.2019.4.2.4019>
- Imran, M. A., Akhir, M., & Arif, T. (2025). Development of children's literature e-module media based on Google Workspace for Education. *Journal of Educational Sciences*, 9(4), 2678–2686. <https://doi.org/10.31258/jes.9.4.p.2678-2686>
- Jaya, A., Rahayu, D. W. S., Bigofik, M. N., Amelia, F., & Rodriguez, M. (2025). Empowering social solidarity through Islamic digital da'wah on social media platforms. *Alfabet: Jurnal Wawasan Agama Risalah Islamiah, Teknologi dan Sosial*, 2(2), 39–51. <https://doi.org/10.34306/alwaarits.v2i2.875>
- Kahfi, A. (2025). The role of WhatsApp social media in the spreading of community-based bil tadwin preaching. *Kalijaga Journal of Communication*, 7(1), 89–106. <https://doi.org/10.14421/kjc.71.05.2025>
- Mahsun. (2021). *Metode penelitian bahasa: Tahapan, strategi, metode, dan tekniknya* (3rd ed.). Rajawali Pers.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage Publications.
- Moleong, L. J. (2021). *Metodologi penelitian kualitatif* (Revised ed.). PT Remaja Rosdakarya.
- Mustakim, Z., Ali, F., & Kamal, R. (2021). Empowering students as agents of religious moderation. *Jurnal Pendidikan Islam*, 7(1), 65–76. <https://doi.org/10.15575/jpi.v7i1.12333>
- Mutmainnah, M. N., Rahmatia, R., & Hasbi, H. (2021). Literasi media sosial pada pemuda. *Jurnal Dakwah Tabligh*, 21(2), 149–160. <https://doi.org/10.24252/jdt.v21i2.14894>
- Oftaviani, R., & Negoro, N. P. (2022). Tingkat pengetahuan agama penonton tayangan Buya Yahya. *Jurnal Penyuluhan Agama*, 9(2), 169–194. <https://doi.org/10.15408/jpa.v9i2.27295>
- Sadik, A. A., Fattah, A., & Ulviani, M. (2025). The effect of social media on religious behavior. *Edukasi Islami: Jurnal Pendidikan Islam*, 14(4). <https://doi.org/10.30868/ei.v14i04.9170>

- Samsudin, D., & Putri, I. M. (2023). Etika dan strategi komunikasi dakwah Islam berbasis media sosial. *Ath-Thariq: Jurnal Dakwah dan Komunikasi*, 7(2). <https://doi.org/10.32332/ath-thariq.v7i2.7474>
- Sugiyono. (2022). *Metode penelitian kualitatif*. Alfabeta.
- Sulfika. (2021). Resepsi masyarakat milenial terhadap pesan dakwah. *Jurnal Dakwah Tabligh*, 21(2), 253–261. <https://doi.org/10.24252/jdt.v21i2.11209>
- Tracy, S. J. (2022). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact* (2nd ed.). Wiley-Blackwell.
- Ummah, A. H. (2020). Dakwah digital dan generasi milenial. *TASAMUH: Jurnal Komunikasi dan Pengembangan Masyarakat Islam*, 18(1). <https://doi.org/10.20414/tasamuh.v18i1.2151>
- Wahyuni, R., & Harahap, S. R. (2023). Efektivitas media sosial sebagai media dakwah pada era digital. *An-Nadwah*, 29(2). <https://doi.org/10.37064/an-nadwah.v29i2.18571>
- Wahyuni, R., Firdaus, L. N., Putra, R. A., Linggasari, M. N., Wulandari, P. A., & Fadilah, M. (2025). Project-based learning (PjBL) green pedagogy e-module. *Journal of Educational Sciences*, 9(2), 876–885. <https://doi.org/10.31258/jes.9.2.p.876-885>