

Developing Materials of Thematic Quranic Interpretation based on Artificial Intelligence

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Abstract

This study aims to develop and evaluate the Developing Materials Of Thematic Quranic Interpretation Based On Artificial Intelligence technology using the Perplexity platform. A descriptive approach is used to validate the learning media through evaluation by media experts and material experts. The validation results show that this media obtained an average feasibility score of 3.65 (feasible category). Media expert validation includes aspects of interface design, interactivity, and system stability, while material expert validation assesses the suitability of the content to the interpretation theme, accuracy of interpretation, and relevance to the curriculum. The results of the study revealed that AI technology in the Perplexity platform is able to increase learning efficiency through personalization of materials and access to relevant information in real time. This media also supports the development of students' critical thinking skills in assessing the accuracy of sources and understanding the themes of Al-Qur'an interpretation. The integration of this technology into learning results in a more interactive and effective learning experience. In conclusion, the AI-based "Thematic Interpretation" learning media is worthy of being used as a supporting tool for the religious education process. Further implementation is expected to include trials on a wider scale to measure its impact on student learning outcomes.

Keywords: *learning media, thematic interpretation, artificial intelligence, Perplexity AI, expert validation*

Introduction

In the 21st century, most people cannot escape from the digital world, among the reasons is the advancement of technology that has a great effect on its innovation to provide convenience in doing a job. The development of technology has a great influence on the world of education, directly or indirectly. In the world of education, with the development of technology marked by the emergence of many technology-based learning facilities, such as computers and laptops (Salsabilla & Nurrohim, 2024). According to Nurhairunnisah (2017), the advancement of technology today has a huge influence on the field of education. (Hendrawati, 2017). In today's era, technology has become an important tool, because with technology it can facilitate the delivery of information and also as a tool to facilitate activities in teaching and learning (Nurchari et al., 2024).

Therefore, this study aims to further analyze the Utilization of AI in Islamic Religious Education learning, especially in learning the Quran. By strengthening our understanding of how best to utilize this technology in the context of religious education (An et al., 2024). it is hoped that a more effective and holistic approach can be developed in religious learning that combines the advantages of technology with the needs of spirituality and meaningfulness in Islamic religious education. (Sari Prabandari & Suhardianto, 2024).

As technology advances, AI has become an integral part of various aspects of human life, from simple applications such as virtual assistants to more complex systems such as autonomous vehicles. Using techniques such as machine learning and natural language processing, AI enables computers to perform fast and accurate data analysis and provide relevant recommendations to users. This makes AI an invaluable tool in increasing efficiency in various sectors, including industry, healthcare, education, and more. (Dwi Puja Syahrini, 2023).

The importance of understanding AI is increasing in line with the rapid development of technology. Society is faced with the challenge of understanding how AI works and its impact on everyday life. Therefore, the study of the definition and application of artificial intelligence becomes very relevant in the context of education and the development of future technology. Thus, AI is not just a technological tool, but also a phenomenon that influences the way we think and interact with the world around us. (PDDIKTI, 2020).

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Perplexity AI is a platform that combines search engine functionality with artificial intelligence (AI) technology to provide accurate and comprehensive answers to user questions. By utilizing natural language processing (NLP), Perplexity AI is able to search for information in real-time from various sources on the internet, making it a very useful tool for research and topic exploration. The system is designed to allow users to interact in natural language, so they can ask questions in an intuitive way. One of the main features of Perplexity AI is its ability to display the source of information from which the answer was taken, providing transparency and credibility to the information presented. In addition, Perplexity AI is also equipped with a question editing feature, which allows users to refine their questions to get more relevant answers. With an appearance similar to a traditional search engine, Perplexity AI not only functions as a search tool, but also as an interactive chatbot that can help users find and understand information better. Other advantages include the ability to group search results in the form of threads, so users can organize information based on specific topics. Overall, Perplexity AI is a significant innovation in the world of information retrieval that uses artificial intelligence to improve the user experience.(Xu & Sheng, 2024).

Education in the current era of globalization requires teachers to be able to operate computers or laptops and also provide innovations in order to provide a new atmosphere in the learning environment.(Supardi, 2014). Education requires us to be able to truly be used as a foundation so that when utilizing technology it can be applied effectively by teachers, because education is a gateway for anyone to receive knowledge in order to improve human resources to be of better quality.(Rahmawati et al., 2023).

AI technology has shown its potential in various fields, including education. With advanced data analysis capabilities, AI can be used to design adaptive, relevant, and contextual teaching materials. In the context of thematic interpretation, AI can help compile materials that are in accordance with a particular theme, provide relevant verse references, and present explanations that are easy for students to understand. The use of AI in teaching thematic interpretation not only increases efficiency, but also encourages active student involvement in learning.(Wati & Gunawan, 2024).

Perplexity Website Learning Media

Perplexity Website-Based Learning Media is a concept that utilizes artificial intelligence technology from Perplexity AI to support interactive and adaptive learning processes. The Perplexity website is used as a platform that helps students, educators, or general users to access information in a fast, reliable, and evidence-based manner. In the context of learning, Perplexity AI offers the ability to answer complex questions, provide relevant explanations, and provide educational resources in real-time.(Wati & Gunawan, 2024).

As a learning medium, the Perplexity website can be integrated into various teaching methods, both individually and in class. Users can ask specific questions about learning topics, such as history, science, technology, or even thematic interpretations in religious studies. With the transparency of the information sources presented, Perplexity helps its users verify the answers and understand the context more deeply.(Kirana et al., 2023).

Another advantage of the Perplexity website as a learning medium is its ability to be a flexible AI-based virtual assistant. This makes it a platform that can be used for various levels of education, from elementary school to college. In addition, the user-friendly interface and accessibility via mobile applications make Perplexity a learning medium that is easily accessible anytime and anywhere, which supports modern technology-based learning.(Pembelajaran et al., 2024).

With its AI capabilities, Perplexity AI can help users develop critical thinking skills, broaden their horizons, and learn materials in a more efficient and in-depth way. As a learning medium, this platform not only provides answers, but also helps build better understanding through trusted and relevant resources.(PDDIKTI, 2020).

What is Perplexity?

Perplexity AI is an artificial intelligence-based search engine designed to provide accurate, reliable, and real-time answers to user questions. The platform uses large language models (LLMs) and data from web sources to generate relevant information. The main advantage of Perplexity AI is its ability to present answers with high transparency, where each answer is accompanied by a source of information that can be verified by the user.(Xu & Sheng, 2024).

Perplexity AI can be accessed through its official website at perplexity.ai and is also available in the form of an application on Android and iOS devices, so users can access it easily at any time. In addition, this platform offers an extension for the Chrome browser that allows users to search for information directly from their browser. With an approach that combines a conversational interface and clear answers, Perplexity AI is an attractive alternative to traditional search engines like Google. Founded in 2022, Perplexity AI has grown rapidly and is known for providing an interactive and immersive search experience for its users.(Dwi Puja Syahrini, 2023).

Benefits of Perplexity in Learning

In the context of learning, the Perplexity website can be used as a useful indicator for various things related to the student learning process. This website can be used to measure the extent to which students understand the learning material. By asking questions or searching for information, the level of relevance and depth of answers provided by Perplexity can reflect the extent to which students have mastered a particular topic. In addition, Perplexity provides transparent answers by including reliable sources of information. This can be an indicator of the quality of the material or learning resources being used, helping educators ensure that students receive valid information.(Zahar, 2024).

Perplexity can also serve as a tool to demonstrate the effectiveness of AI-based learning media. In this context, Perplexity technology can improve student interaction and understanding of learning materials. By providing clear answers and citing sources, Perplexity encourages students to verify information, assess the accuracy of data, and develop critical thinking skills. In addition, patterns of questions asked or areas frequently searched through Perplexity can help educators identify topics that require more attention or deeper explanation.(Dwi Puja Syahrini, 2023).

Using the Perplexity website in learning also helps students develop digital literacy, namely the ability to use technology to access and process information, which is an important skill in the digital era.(Syafiuddin et al., 2024). Perplexity can support a more personalized learning process, where specific and contextual answers show how artificial intelligence can support individual learning needs. Thus, Perplexity is not only a learning tool, but also an indicator of success in creating a more effective, interactive, and evidence-based learning process.(Zahar, 2024).

How to Integrate Perplexity into Learning

In today's digital era, technology plays a very important role in improving the quality of learning, including in the field of religious studies and interpretation. On a platform that can be used to support thematic interpretation learning is the Perplexity website (Zahar, 2024). an artificial intelligence (AI)-based tool that can provide fast and accurate access to information relevant to a particular topic. Integrating a website like Perplexity into thematic tafsir learning can provide significant benefits, especially for students who want to deepen their understanding of Qur'anic interpretation with a more interactive and data-driven approach.(Wati & Gunawan, 2024).

The Perplexity website uses AI technology to provide answers and explanations supported by trusted sources (Elfirdaus et al., 2024). In the context of learning thematic interpretation, students can use this tool to search for interpretations or interpretations of verses of the Qur'an that are in accordance with related themes, such as social, political, ethical, or spiritual. By using Perplexity, students can easily access various relevant academic sources, such as articles, books, and journals, which may be difficult to find through conventional search methods. In addition, the AI used by Perplexity can filter more relevant information and provide a more in-depth explanation of the interpretation of a verse or theme, which can enrich students' understanding of the texts of the Qur'an(Rusli et al., 2024).

The integration of Perplexity in thematic interpretation learning also allows for more flexible and independent research-based teaching (Bukhori et al., 2024). Students can more freely search for the information they need according to the theme they are studying, and gain a broader perspective through various sources generated by artificial intelligence. This technology also supports the development of students' critical skills in assessing the quality and validity of information sources they find on the internet, which are important skills in today's academic world. In addition, the use of AI in learning can increase the effectiveness of the teaching and learning process by speeding up information search time and reducing dependence on limited teaching materials (Wati & Gunawan, 2024).

However, while technology such as Perplexity offers many benefits, its use must be balanced with a critical and thoughtful approach. Students need to be trained not only to rely on technology, but also to understand the contextualization of interpretation within the historical, social, and cultural frameworks that surround it.(Elfirdaus et al., 2024). Therefore, the integration of Perplexity in thematic interpretation learning must be accompanied by appropriate direction from lecturers or teachers to ensure that this technology is used in a way that enriches academic understanding, not replacing the critical and analytical thinking processes that are essential in the study of interpretation.(Rusli et al., 2024).

Thus, the integration of the Perplexity website into AI-based thematic interpretation learning can be a very valuable tool in developing students' understanding of the interpretation of the Qur'an. By utilizing this technology wisely(Pakaja & L, 2024). Students can gain easier and faster access to relevant information, which will ultimately deepen their understanding of the themes of interpretation being studied.(Kirana et al., 2023).

Research methods

This research method uses a descriptive method using a validation approach from media experts and related material experts (Hanyfah et al., 2022). Validation Results of media experts and material experts in the study of DEVELOPING MATERIALS OF THEMATIC QURANIC INTERPRETATION BASED ON ARTIFICIAL INTELLIGENCE To determine the validity of the teaching materials of DEVELOPING MATERIALS OF THEMATIC QURANIC INTERPRETATION BASED ON ARTIFICIAL INTELLIGENCE which were developed and validated by two validators, namely media expert validators and material expert validators. In processing the validation carried out by media experts and also media expert validation. The validator validates the perplexity website that has been studied by filling out a validation sheet in the form of a questionnaire and providing a checklist (✓) in the column provided on the validation sheet(Oktariyanti et al., 2021). Media validation was conducted on December 25, 2024. The results of the validation by media experts can be seen in table 1.

Results and Discussion

Validation Results

The AI-based Developing Materials Of Thematic Quranic Interpretation Based On Artificial Intelligence has gone through a validation process by media experts and material experts to ensure its quality and effectiveness. The validation results are as follows:

The following is the format of Table 1: Media Expert Validation Results which describes the validation of the Developing Materials Of Thematic Quranic Interpretation Based On Artificial Intelligence using the perplexity approach:

<i>No</i>	<i>Rated aspect</i>	<i>Validator Score</i>	<i>Category</i>
1	Suitability of the interface display to the learning material	3.8	Worthy
2	Ease of navigation and accessibility of AI-based features	3.6	Worthy
3	Clarity of text, graphics and multimedia elements in the application	3.7	Worthy
4	Media interactivity in responding to input of interpretation themes	3.5	Worthy
5	The effectiveness of complexity reduction in theme search	3.4	Worthy
6	Consistency of layout and design between pages	3.6	Worthy
7	System stability and speed during use	3.5	Worthy
8	Utilization of AI technology to support understanding of interpretation	3.7	Worthy

Average score:3.6 (Decent)

Category Description:

- **3.26 – 4.00:** Worthy
- **2.51 – 3.25:** Quite Decent
- **1.76 – 2.50:** Less Worthy
- **1.00 – 1.75:** Not feasible

Table 1 shows the results of the media expert validation score of 3.7. This score indicates that the Validation of the DEVELOPING MATERIALS OF THEMATIC QURANIC INTERPRETATION BASED ON ARTIFICIAL INTELLIGENCE that has been developed meets the criteria (feasible) valid and does not require revision, making it suitable for use in the learning process. Meanwhile, the validation from the second validator is the validation of the Thematic Interpretation material expert in the Validation of the DEVELOPING MATERIALS OF THEMATIC QURANIC INTERPRETATION BASED ON ARTIFICIAL INTELLIGENCE. The results of the validation of the material expert can be seen in table 2.

The following is Table 2: Results of Material Expert Validation for the Developing Materials Of Thematic Quranic Interpretation Based On Artificial Intelligence using the perplexity approach:

Table 1. Results of Material Expert Validation

<i>No</i>	<i>Rated aspect</i>	<i>Validator Score</i>	<i>Category</i>
1	Conformity of content to thematic interpretation theme	3.9	Worthy
2	The truth of the facts and the accuracy of the interpretation of the verses of the Qur'an	3.8	Worthy
3	Ease of understanding the concept of interpretation through AI-based features	3.7	Worthy
4	Relevance of material to the learning curriculum	3.8	Worthy
5	Reducing complexity (perplexity) in understanding themes	3.6	Worthy
6	The relationship between the theme and the verses given	3.7	Worthy
7	Clarity of presentation of material in the form of text, audio and graphics	3.8	Worthy
8	AI support for automatic thematic search	3.6	Worthy

Average Score:3.74 (Decent)

Category Description:

- **3.26 – 4.00:** Worthy
- **2.51 – 3.25:** Quite Decent
- **1.76 – 2.50:** Less Worthy
- **1.00 – 1.75:** Not feasible

Table 2 is the result of validation from material experts that the total score of the validation results of material experts is 3.74. This means that the material in the DEVELOPING MATERIALS OF THEMATIC QURANIC INTERPRETATION BASED ON ARTIFICIAL INTELLIGENCE that has been developed is a valid (Feasible) criterion. valid and does not require revision, making it suitable for use in the learning process.

1. Media expert validation

This validation is part of the objective to assess aspects that cover design, interactivity, ease of navigation, and aesthetics of learning media. From the results based on the evaluation conducted, the media expert gave a feasibility percentage score of 3.6 (Feasible), which means that this learning media is considered into the "Feasible" category in terms of technical and design. The assessed aspects also include aspects of visual design, technological responsiveness, and ease of use, Some points that received attention in this validation include:

- a. The suitability of the with the learning material At this point get a score of 3.8 which is included in the feasible category validated by the Media Expert.
- b. Clarity of text, graphics, and multimedia elements in the application At this point get a score of 3.7 which is included in the feasible category validated by the Media Expert.
- c. Utilization of AI technology in supporting the understanding of tafsir At this point get a score of 3.7 which is included in the feasible category validated by the Media Expert

2. *Subject Matter Expert Validation*

This validation is part of the objective to assess the suitability, depth, and accuracy of the content presented. Based on the results of validation of the content and material aspects, the material expert validation gave a feasibility percentage score of 3.74 (Feasible), which means that the material presented has met academic standards which are also included in the "very good" category. The assessment includes content accuracy, relevance to learning objectives, and clarity of material delivery and is suitable for use in learning. Some of the main aspects assessed include:

- a. Content suitability to the theme of interpretation At this point, the score is 3.9 which is included in the feasible category validated by the Material Expert.
- b. Correctness of facts and accuracy of interpretation of Qur'verses At this point get a score of 3.8 which is included in the feasible category validated by the Material Expert.
- c. The connection between the theme and the verse given at this point gets a score of 3.7 which is included in the feasible category validated by the Material Expert.

The average total validation results from both experts was 3.65 (feasible), so the media in this learning was declared very feasible for use.

Discussion

The validation results show that the Developing materials of thematic quranic interpretation based on artificial intelligence has very good quality, both in terms of design and content. The validation process by media experts ensures that the appearance and technology used meet pedagogical and aesthetic standards. Meanwhile, validation by material experts provides validation that the content presented is relevant, accurate, and in accordance with the applicable curriculum.(Ernawati, 2017).

The main advantage of this learning media lies in the use of AI technology which is able to increase interactivity and make it easier.(Vela et al., 2021). Access to learning materials. This technology also supports personalization of learning, allowing students to learn according to their individual needs and pace.(Alsyabri, 2021).

Suggestions and inputs obtained from experts are used to refine the product before being implemented in the learning process. Thus, this learning media is expected to increase students' learning motivation, facilitate detailed understanding of the material being studied, and support the achievement of learning objectives effectively.

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The author realizes that this research still has limitations. Therefore, all constructive criticism and suggestions are highly expected for the sake of improving this research in the future. Hopefully this research can provide benefits for the development of thematic interpretation studies and technology-based learning innovations.

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