



Evidence-Based Rhetorical Invention and Digital Literacy: Pedagogical Implications from Najwa Shihab's Public Speech

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Abstrak

Penelitian mengenai literasi digital dan retorika digital terus berkembang, namun evidence-based rhetorical invention sebagai mekanisme pedagogis yang mentransformasikan bukti empiris menjadi pengetahuan publik masih kurang mendapat perhatian. Penelitian ini bertujuan mengkaji evidence-based rhetorical invention sebagai mekanisme pedagogis dan epistemik dalam pengembangan literasi digital. Data penelitian berupa pidato publik Najwa Shihab, "Youth and Literacy Awareness in the Digital Era," yang dipublikasikan melalui YouTube. Penelitian menggunakan pendekatan kualitatif dengan metode kritik retorika, berdasarkan konsep inventio Aristoteles dan pengembangannya dalam kajian retorika kontemporer. Hasil penelitian menunjukkan bahwa evidence-based rhetorical invention dikonstruksi melalui tiga strategi utama: penalaran statistik, otoritas akademik dan institusional, serta pedagogi publik yang menghubungkan konsep abstrak literasi digital dengan pengalaman sehari-hari. Temuan menunjukkan bahwa rhetorical invention tidak hanya berfungsi sebagai strategi persuasi, tetapi juga sebagai mekanisme pedagogis dan epistemik yang mentransformasikan bukti empiris menjadi pengetahuan publik yang mudah dipahami. Literasi digital merupakan praktik sosio-epistemik yang menuntut evaluasi kritis terhadap kredibilitas dan konteks informasi. Penelitian ini berkontribusi pada integrasi retorika, pedagogi publik, dan pendidikan literasi digital serta berimplikasi pada pembelajaran argumentasi, berbicara akademik, dan literasi digital kritis dalam pembelajaran bahasa Indonesia dan bahasa Inggris.

Kata Kunci: invensi retorik berbasis bukti, literasi digital, wacana publik, pedagogi, Najwa Shihab, literasi kritis

Abstract

Research on digital literacy and digital rhetoric continues to expand; however, "evidence-based rhetorical invention" as a pedagogical mechanism that transforms empirical evidence into public knowledge has received insufficient attention. This study aims to examine evidence-based rhetorical invention as both a pedagogical and epistemic mechanism in the development of digital literacy. The research data consists of a public speech by Najwa Shihab titled "Youth and Literacy Awareness in the Digital Era," published on YouTube. A qualitative approach employing rhetorical criticism was used, drawing upon Aristotle's concept of invention and its subsequent developments in contemporary rhetorical studies. The results indicate that evidence-based rhetorical invention is constructed through three primary strategies: statistical reasoning, academic and institutional authority, and a form of public pedagogy that connects the abstract concept of digital literacy with everyday experiences. The findings demonstrate that rhetorical invention functions not merely as a persuasive strategy but also as a pedagogical and epistemic mechanism that transforms empirical evidence into accessible public knowledge. Digital literacy is a socio-epistemic practice requiring a critical evaluation of information credibility and context. This study contributes to the integration of rhetoric, public pedagogy, and digital literacy education, offering implications for the teaching of argumentation, academic speaking, and critical digital literacy within Indonesian and English language instruction.

Keywords: rhetorical invention, digital literacy, public discourse, pedagogy, Najwa Shihab, critical literacy

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INTRODUCTION

Digital transformation has brought about fundamental changes in the way individuals access, produce, distribute, and interpret information. In an increasingly digitalized society, the ability to participate effectively in academic, professional, social, and civic life is no longer solely determined by conventional reading and writing skills, but also by the ability to understand, evaluate, and utilize information circulating through various digital platforms. Therefore, digital literacy has become one of the core competencies of the 21st century, playing a crucial role in shaping the quality of individual participation in an information-based society (Pangrazio & Sefton-Green, 2021). As technology advances, digital literacy is no longer understood as a static set of technical skills, but rather as a social practice that continually evolves in response to changes in media, platforms, algorithms, and digital culture (Bacalja et al., 2022). In fact, various contemporary education systems have positioned digital literacy as one of the new fundamentals necessary to support lifelong learning and realize a knowledge-based society (Bacalja et al., 2021).

While digital technology provides increasingly broad access to information, this development also presents new challenges. These challenges occur in the form of misinformation, disinformation, information manipulation, digital propaganda, and the polarization of public opinion. Individuals are not only required to be able to access information but also to be able to distinguish accurate from misleading information, evaluate the credibility of information sources, and understand the various persuasive strategies that operate in the digital space. Various studies show that these skills remain problematic in many countries, including among the younger generation, often assumed to be the group most familiar with digital technology (Ilomäki et al., 2023). This situation demonstrates that digital literacy cannot be understood solely as technical skills in using digital devices, but rather as critical skills that enable individuals to understand how information is produced, disseminated, and used in social life (Gutierrez-Ujaque, 2024).

These developments have led to the emergence of a critical digital literacy approach, which places critical thinking skills at the core of digital literacy. From this perspective, digital literacy relates to the ability to evaluate arguments, verify information, understand the relationship between information and power, and make responsible decisions based on available evidence (Pandya et al., 2024). Recent developments even indicate that the ability to understand the logic of algorithms, artificial intelligence, and information automation processes is becoming a crucial component of contemporary digital literacy (Colby, 2024; Jiang et al., 2024). Amid the increasing use of AI-based technologies, digital literacy also encompasses the ability to understand how technology influences knowledge production, the authority of information, and public decision-making processes (Gupta & Shivers-McNair, 2024). Thus, digital literacy is essentially a pedagogical project aimed at developing individuals capable of critical, reflective, and ethical participation in a digital society (Eyal & Te'eni-Harari, 2024).

In the context of language and literacy education, a number of scholars have begun to revive the relevance of rhetoric as a conceptual framework for understanding how individuals construct knowledge, evaluate information, and participate in social life through communication. Green et al. (2022) argue that rhetoric provides a productive perspective for literacy education because it enables individuals to develop rhetorical agency, namely the ability to act and influence the social environment through effective communicative choices. From this perspective, literacy is not only concerned with the ability to understand texts, but also with the ability to evaluate arguments, construct knowledge, and generate social action through meaningful communication.

The link between rhetoric and literacy becomes increasingly important in a digital environment characterized by an abundance of information and competing claims to truth. In this situation, individuals act not only as consumers of information but also as evaluators, who must determine the validity, credibility, and relevance of the information they receive. Therefore, the development of digital literacy cannot be separated from the rhetorical processes that shape how individuals understand, interpret, and respond to information. Rhetoric has become a crucial tool that enables individuals to consider evidence, assess the quality of arguments,

and make rational decisions when faced with the diverse information circulating in digital spaces. In fact, in the digital communication environment, rhetorical agency is no longer seen as a purely individual skill, but rather as the result of complex interactions between humans, technology, algorithms, platforms, and digital communities (Beck, 2020).

This perspective aligns with the concept of public pedagogy, which views the educational process not only as taking place in formal institutions but also through various forms of public communication circulating in society (Graham & Dugmore, 2022). In the digital era, mass media, social media, podcasts, online videos, and public speeches serve as pedagogical spaces that shape how society understands various social, political, cultural, and technological issues. Ncaga (2025) demonstrates that contemporary digital communication practices can function as pedagogical tools that shape public awareness and social engagement. Thus, public figures, journalists, activists, and public intellectuals serve not only as conveyors of information but also as informal educators, bridging academic knowledge with the needs of the wider community.

One fundamental concept in the rhetorical tradition relevant to explaining this process is invention or *inventio*. In classical rhetoric, invention is the first canon of rhetoric, concerned with the process of discovering, selecting, and developing the most appropriate arguments to achieve a specific persuasive goal. Aristotle viewed invention as the ability to find the means of persuasion available in a rhetorical situation. Thus, invention is not only related to the content of the message conveyed, but also to the process of finding evidence, examples, data, and reasoning that can be used to construct effective arguments.

However, developments in contemporary rhetorical studies indicate that invention is no longer understood as a purely individual activity. Brooke (2009) explains that invention is an ecological, dynamic process influenced by various social and technological factors. In the context of digital communication, invention is understood as a practice that emerges from the interaction between humans, technology, the information environment, and interconnected social networks. Richter (2023) suggests that digital rhetorical practice demands a new understanding of how arguments are constructed through the various information sources available in digital networks. This perspective is expanded by Richter (2024) through the concept of network-emergent rhetorical invention, namely the process of invention that emerges through the interaction between humans, algorithms, digital communities, and communication technology.

This development broadens the function of invention from a mere tool of persuasion to a mechanism for the production and distribution of knowledge. In the context of public communication, invention enables speakers to transform statistical data, research findings, empirical facts, and social experiences into narratives that are understandable to a wider audience. Thus, invention has a pedagogical dimension because it helps audiences understand complex issues through structured, evidence-based argumentation. In fact, developments in artificial intelligence technology increasingly demonstrate how the invention process is closely related to knowledge production, decision-making, and contemporary public communication practices (Majdik & Graham, 2024).

Although research on digital literacy has grown rapidly in recent years, most studies still focus on curriculum, learning strategies, student competencies, and technology integration in formal education (Eyal & Te'eni-Harari, 2024; Ilomäki et al., 2023). These studies have made significant contributions to the development of digital literacy education, but they have not yet shed much light on how digital literacy is promoted through public communication outside the classroom. On the other hand, research on contemporary digital literacy increasingly addresses algorithmic literacy, AI literacy, and students' digital competencies (Colby, 2024; Gupta & Shivers-McNair, 2024; Jiang et al., 2024).

Meanwhile, research on digital rhetoric shows rapid development in the study of social media, digital participation, online identity, and digital communication practices (Richter, 2023). However, attention to invention as a mechanism enabling the transformation of empirical evidence into public education remains relatively limited. Most research focuses on persuasion strategies, framing, digital identity, or discourse

analysis, while the process of discovering, selecting, and organizing evidence-based arguments has received insufficient attention (Richter, 2023). Consequently, there is little research explaining how empirical data and scientific research findings are constructed through rhetorical invention to support public learning about digital literacy.

Furthermore, research on Najwa Shihab has generally focused on communication style (Sari, 2021), political interviews (Radianti & Sofyaningrum 2026), media framing (Bunayyah, 2023), the credibility of the communicator (Adriyanti, 2023), and the representation of social issues (Zalukhu & Yufita, 2025) in her journalistic programs. To date, very little research has specifically examined how Najwa Shihab utilizes statistical data, scientific research findings, and academic authority as primary sources for argument formation in her public speeches. In fact, the use of empirical evidence is one of the most prominent characteristics of her digital literacy speech, particularly when she explains the phenomena of hoaxes, misinformation, and the challenges of digital literacy among the younger generation.

This research gap is increasingly important given the growing public demand for critical digital literacy. In a context where society is inundated with various, often contradictory, information, the ability to understand, evaluate, and verify information becomes increasingly crucial. In such situations, public figures with high credibility have the potential to perform a significant pedagogical function through evidence-based public communication.

Against this backdrop, this study examines Najwa Shihab's speech on digital literacy as a rhetorical practice that integrates scientific research findings, statistical data, institutional authority, and the audience's everyday experiences into an educational message. Unlike previous research that positions rhetoric primarily as an instrument of persuasion, this study views invention as a pedagogical mechanism that enables the transformation of scientific knowledge into public education.

The novelty of this study lies in its application of an evidence-based rhetorical invention perspective to explain how statistical reasoning, academic and institutional authority, and public pedagogy are employed to select, validate, and transform evidence into educational arguments within public discourse on digital literacy. This concept extends the study of invention in classical rhetoric into the context of contemporary digital literacy advocacy while bridging the studies of rhetoric, public pedagogy, and digital literacy. Thus, this research offers a new perspective that invention functions not only as a persuasive tool but also as a pedagogical strategy that enables public intellectuals to transform scientific knowledge into critical digital literacy for the public. Therefore, this study aims to analyze how evidence-based rhetorical inventions are constructed in Najwa Shihab's speech to promote digital literacy to Generation Z audiences.

METHOD

This study uses a qualitative approach with the rhetorical criticism method, as proposed by Foss (2018), to examine how evidence-based rhetorical invention is constructed in Najwa Shihab's speech on digital literacy. The rhetorical criticism method was chosen because it allows for in-depth analysis of how speakers find, select, organize, and integrate evidence into arguments according to specific rhetorical contexts. In this study, evidence-based rhetorical invention is positioned as an analytical category, not a research method. The analysis is based on Aristotle's concept of *inventio*, the first canon of rhetoric, which explains the process of finding available means of persuasion in a rhetorical situation, as well as its development in contemporary rhetorical studies, which view *inventio* as a dynamic rhetorical practice influenced by the interaction between evidence, social context, and communication goals. The research data consists of Najwa Shihab's public speech, "Youth and Literacy Awareness in the Digital Era," delivered as a public lecture at Gadjah Mada University on April 1, 2024, at the UGM Campus Mosque in Yogyakarta, and published on YouTube (<https://www.youtube.com/watch?v=sHIE3Afptw>). Data collection was conducted on August 27, 2025. The speech was purposively selected because it explicitly discussed digital literacy, utilized various forms of

empirical evidence to build its argument, and positioned the younger generation as the primary audience within the context of the contemporary digital ecosystem. Data were collected through documentation techniques by accessing publicly available video recordings. The speech was then transcribed verbatim and verified by comparing the transcription with the original recording to ensure data accuracy.

The units of analysis in this study are rhetorical segments containing statistical data, research findings, references to academic or institutional authorities, illustrations drawn from everyday experiences, and other forms of empirical evidence used to construct arguments about digital literacy. These segments are treated as manifestations of evidence-based rhetorical invention, a rhetorical process where empirical evidence is constructed into educational arguments in public communication.

Data analysis was conducted through an iterative process. The first stage involved repeated reading of the speech transcripts to gain a thorough understanding of the rhetorical context and to identify segments containing empirical evidence. The second stage involved coding and classifying these segments based on the type of evidence used, including statistical data, research findings, academic or institutional authority, and experiential illustrations. The third stage involved interpreting each category using Aristotle's concept of *inventio* and its development in contemporary rhetoric to explain how evidence is discovered, selected, organized, and integrated into persuasive and educational arguments. The final stage involved a thematic synthesis to identify key patterns of evidence-based rhetorical invention and to explain how *inventio* functions not only as a persuasive strategy but also as an epistemic and pedagogical mechanism that transforms scientific knowledge into accessible public knowledge within the context of digital literacy. The entire analysis process is directed at identifying the conceptual characteristics of evidence-based rhetorical invention as an analytical framework that explains how empirical evidence is transformed into public knowledge through rhetorical practices.

RESULTS AND DISCUSSION

An analysis of her speech, "Youth and Literacy Awareness in the Digital Era," shows that Najwa Shihab constructed arguments about digital literacy through the use of various sources of empirical evidence, ranging from statistical data, academic research results, institutional reports, to the audience's daily experiences. The research findings demonstrate that the rhetorical invention process is not merely aimed at persuading the audience but also serves as a pedagogical mechanism that transforms scientific knowledge into accessible public understanding. Based on the data analysis, three main forms of evidence-based rhetorical invention were identified: (1) invention through statistical reasoning, (2) invention through academic authority, and (3) invention as public pedagogy.

The first finding indicates that Najwa Shihab consistently uses statistical data as the primary source for her argument. The use of quantitative data allows the speaker to establish credibility while raising awareness of the digital literacy issues being discussed.

Table 1. Evidence-Based Rhetorical Invention Through Statistical Reasoning

No.	Original Excerpt (with English Translation)	Type of Evidence	Rhetorical Function	Pedagogical Function
1	<i>"Yogyakarta adalah kota yang paling tinggi tingkat literasi digitalnya di seluruh Indonesia. Skornya 3,64."</i> (<i>"Yogyakarta has the highest level of digital literacy in Indonesia, with a score of 3.64."</i>)	National survey data	Establishes claim credibility	Introduces digital literacy indicators
2	<i>"Jakarta saja skornya 3,59."</i> (<i>"Even Jakarta scores only 3.59."</i>)	Comparative data	Strengthens argument through contrast	Provides comparative context
3	<i>"Rata-rata tingkat literasi digital kita di ASEAN 62%, negara lain 70%, Korea sampai 90%."</i>	International	Demonstrates disparity	Promotes global awareness

	(“The average level of digital literacy in ASEAN is 62%, while other countries reach 70%, and South Korea reaches 90%.”)	comparative data		
4	“83% generasi Z tidak bisa membedakan mana fakta dan mana dusta.” (“Eighty-three percent of Generation Z cannot distinguish between facts and falsehoods.”)	Research findings	Creates a sense of urgency	Encourages critical reflection

The data in Table 1 shows that Najwa does not begin her argument from personal opinion, but rather from verifiable empirical facts. This strategy demonstrates the key characteristic of evidence-based rhetorical invention, namely the process of finding and selecting sources of argumentation with scientific legitimacy. From an Aristotelian perspective, the use of statistics is a form of leveraging logos to strengthen persuasive power. However, this finding demonstrates that the function of data goes beyond persuasion. Data is used to raise audience awareness about Indonesia's digital literacy position in both national and global contexts.

For example, when comparing Yogyakarta's digital literacy scores with those of Jakarta and ASEAN countries, Najwa goes beyond simply presenting numbers. She uses the comparison to help her audience understand that local achievements must be read within a broader context. Thus, statistics function as a pedagogical instrument that enables the audience to interpret social reality more critically.

The second finding shows that Najwa Shihab constructs her argument through the use of academic and institutional authority. Various research findings and academic institutions are used as sources of legitimacy for her claims.

Table 2. Evidence-Based Rhetorical Invention Through Academic Authority

No.	Original Excerpt (with English Translation)	Source of Authority	Rhetorical Function	Pedagogical Function
1	“Ada riset kolaborasi UGM dan Deakin University di Australia.” (“There is a collaborative study conducted by UGM and Deakin University in Australia.”)	Universities	Enhances argumentative validity	Highlights the importance of scientific research
2	“Stanford University juga melakukan survei...” (“Stanford University also conducted a survey...”)	International university	Expands claim legitimacy	Demonstrates the global nature of the issue
3	“Pada saat Covid, WHO menjadi salah satu sumber resmi yang terpercaya.” (During the COVID-19 pandemic, WHO became one of the most trusted official sources.)	International organization	Builds trust and credibility	Introduces reliable information sources

These findings indicate that the invention in Najwa's speech is not based solely on personal experience, but rather through a process of selecting knowledge from the scientific community. Research findings are used as the basis for argumentation, enabling the audience to accept claims as empirically grounded.

In classical invention theory, this process can be understood as an effort to find the most relevant persuasive sources for a rhetorical situation. However, in the context of contemporary public communication, the use of academic authority also serves as a form of education about the importance of research as a basis for decision-making. In other words, Najwa uses research not only to strengthen her argument but also to teach her audience evidence-based thinking.

These findings demonstrate that evidence-based rhetorical invention involves the process of translating scientific knowledge into a public language that is understandable to the wider public. Through this strategy, research findings are no longer confined to the exclusive academic sphere but become part of the public conversation about digital literacy.

The third finding shows that Najwa packages statistical data and research findings through various communication strategies that are close to the audience's experiences. This strategy makes her speech not only informative but also educational.

Table 3. Evidence-Based Rhetorical Invention as Public Pedagogy

No.	Original Excerpt (with English Translation)	Rhetorical Strategy	Rhetorical Function	Pedagogical Function
1	"Siapa yang cuma baca judul?" ("Who only reads the headline?")	Rhetorical question	Engages the audience	Encourages self-reflection
2	"Ngaku bulan puasa." ("Come on, admit it—it's Ramadan.")	Humor	Creates rapport	Reduces social distance
3	"Kalau kita lagi stalking mantan..." ("When we are stalking our ex...")	Everyday example	Concretizes abstract concepts	Facilitates understanding
4	"Literasi digital jangan dipahami hanya kemampuan menggunakan gawai." ("Digital literacy should not be understood merely as the ability to use digital devices.")	Conceptual redefinition	Challenges misconceptions	Expands audience understanding
5	"Digital skill, digital ethics, digital safety, digital culture." ("Digital skills, digital ethics, digital safety, and digital culture.")	Conceptual classification	Organizes information	Supports learning processes

Table 3 shows that Najwa consistently connects scientific information to the everyday experiences of the younger generation. This finding demonstrates that the process of invention is not only related to the selection of evidence but also to how that evidence is packaged to make it understandable to the audience. For example, after presenting research findings on Generation Z's poor ability to distinguish between facts and hoaxes, Najwa immediately relates this to the habit of reading headlines without checking the content. This strategy bridges the gap between abstract data and the audience's concrete experiences. Thus, the audience not only receives information but is also encouraged to reflect on their own behavior.

From a public pedagogy perspective, this strategy demonstrates that the speech functions as a space for informal learning. Complex scientific knowledge is simplified through humor, analogies, and everyday illustrations, making it more understandable. This finding is consistent with Woods (2023), who demonstrates that digital communication can function as a form of public pedagogy beyond formal educational settings. Therefore, the primary function of invention in this speech is not simply to persuade the audience to accept a claim, but also to build critical awareness about the importance of digital literacy.

The findings of this study indicate that evidence-based rhetorical invention in public speeches functions not only as a persuasive strategy but also as a knowledge construction mechanism that contributes to strengthening digital literacy. In the context of Najwa Shihab's speech "Youth and Literacy Awareness in the Digital Era," the invention process does not occur intuitively or based on personal opinion, but rather through the selection and organization of empirical evidence such as statistical data, academic research results, institutional reports, and the audience's everyday experiences. This finding extends Richter's (2023) discussion of rhetorical invention in digital environments by highlighting the epistemic role of evidence selection and organization in public discourse. This finding indicates that rhetorical invention in the digital context has a strong epistemic dimension, as it plays a role in mediating between scientific knowledge and public understanding.

In recent literature, digital literacy has been reconceptualized as a multidimensional social practice, encompassing technical, cognitive, ethical, and participatory aspects (Mukhlisa et al., 2025; Smith & Storrs, 2023). This perspective reinforces the paradigm shift from digital literacy as a technical skill to a socio-critical practice within the digital ecosystem. This broader perspective is also reflected in Buchan et al. (2024), who emphasize evidence-based approaches in the development of digital literacy among young people. Within this

framework, the findings of this study suggest that evidence-based rhetorical invention can be understood as a form of digital literacy praxis itself, as it involves the process of evaluating, selecting, and representing evidence-based information.

To clarify the conceptual structure of evidence-based rhetorical invention in the context of digital literacy, a model mapping is needed that illustrates the relationship between rhetorical processes, the types of evidence used, and the resulting pedagogical implications. The following diagram provides a visual representation of this conceptual framework.

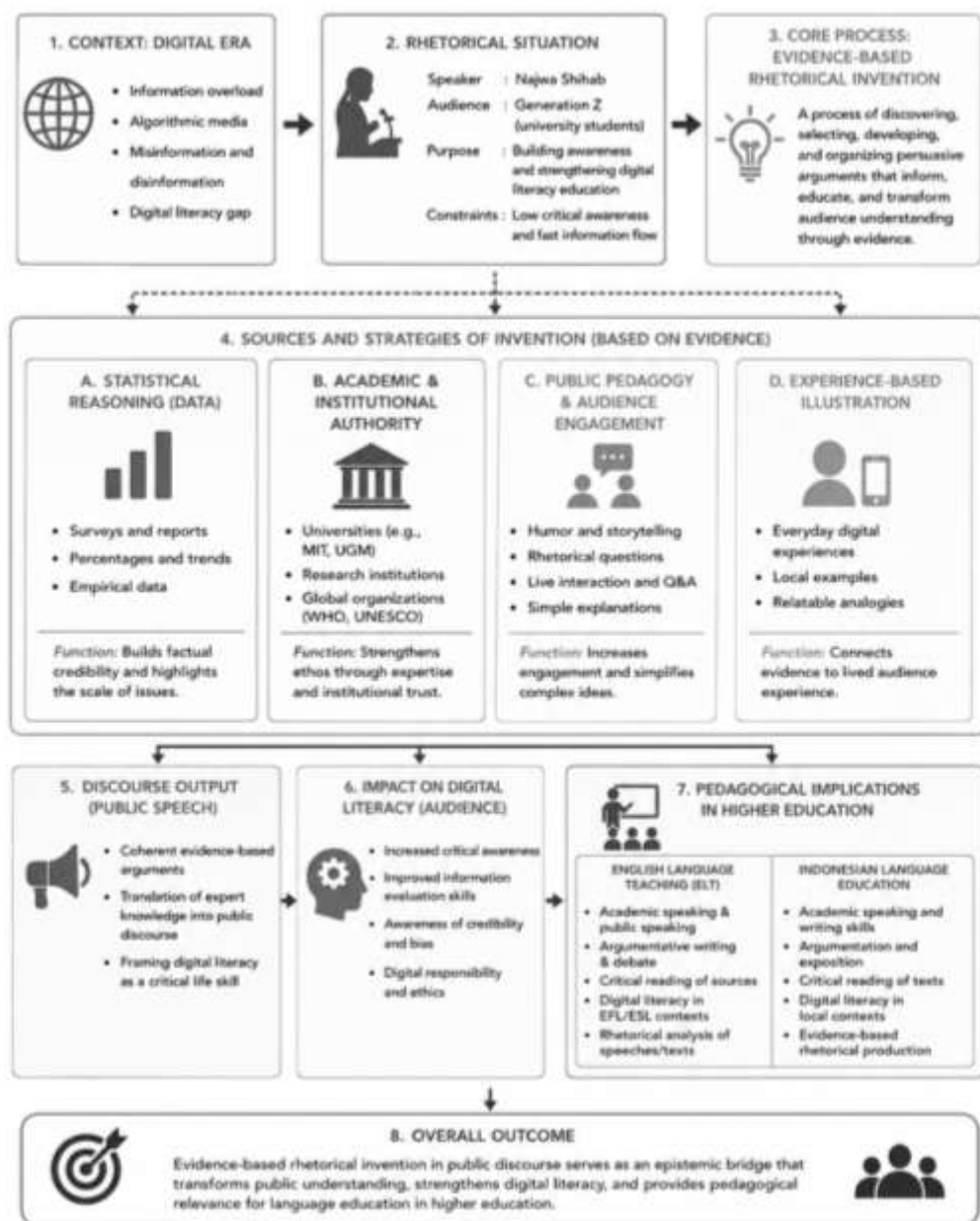


Figure 1. Proposed Conceptual Framework of Evidence-Based Rhetorical Invention and Its Pedagogical Implications for English and Indonesian Language Education in Higher Education

Based on this conceptual framework, the following discussion outlines the empirical manifestations of evidence-based rhetorical invention in Najwa Shihab's speeches, particularly in the form of the use of statistical data, academic authority, and public pedagogical strategies.

The first finding indicates that the use of statistical data in Najwa Shihab's speeches functions not only to reinforce claims but also as a pedagogical instrument to build audience critical awareness. The use of data such

as digital literacy scores, interregional comparisons, and global statistics not only legitimizes arguments but also frames social reality from a comparative and reflective perspective. In this context, the findings suggest that evidence-based rhetorical invention may function as an epistemic mechanism linking exposure to digital information with critical evaluative skills.

In the literature, the phenomenon of the gap between technical skills and critical digital thinking skills has been widely discussed (Mukhlisa et al., 2025; Rayendra et al., 2025). The findings of this study extend this discussion by demonstrating that statistical-based rhetorical invention can function as a strategy to fill this gap by presenting evidence-based information that is easily accessible to the public.

The second finding indicates that the use of academic and institutional authority (such as UGM, Stanford University, and the WHO) serves as a mechanism for epistemic legitimacy and public education. From a classic rhetorical invention perspective, this strategy can be understood as the use of logos through the authority of sources. However, in the context of digital literacy, this finding suggests that academic authority also functions as a model for information literacy, introducing the audience to credible sources of knowledge.

This finding aligns with Smith and Storrs (2023), who emphasize that digital literacy is not only related to the use of technology but also the ability to assess the credibility of information. Thus, the evidence-based rhetorical invention in this speech not only strengthens the argument but also implicitly teaches the audience the practice of evaluating information sources.

The third finding indicates that rhetorical invention in Najwa Shihab's speech also functions as a form of public pedagogy, contextualizing abstract concepts in digital literacy through humor, rhetorical questions, everyday analogies, and conceptual classifications. This strategy bridges the gap between scientific knowledge and the audience's lived experiences, enabling a more effective internalization of digital literacy concepts.

In pedagogical literature, approaches that connect everyday experiences with academic concepts have been shown to enhance learners' conceptual understanding and cognitive engagement (Altun-Yalçın & Yalçın, 2023; Audrin & Audrin, 2022; Giamellaro et al., 2025; Muhajir et al., 2025; Mukhlisa et al., 2025; Nkomo et al., 2021). In this context, Najwa Shihab's speech can be understood as an informal learning space that facilitates digital literacy through rhetorical mediation.

Overall, the findings of this study strengthen the argument that Generation Z does not automatically possess critical digital literacy despite living in an intensive digital environment. Digital literacy remains a competency that must be developed through a systematic and reflective educational process. In this regard, evidence-based rhetorical invention functions as an epistemic mechanism that bridges exposure to digital information and critical evaluative skills.

Thus, the main contribution of this study is to propose a conceptual framework of evidence-based rhetorical invention as a rhetorical practice with epistemic and pedagogical dimensions in the context of digital literacy. Within this framework, rhetorical invention is understood not only as a process of finding arguments within the classical rhetorical tradition, but also as an instrument for shaping epistemic awareness in the contemporary digital space.

Furthermore, these findings suggest that evidence-based rhetorical invention may offer a potential pedagogical framework for digital literacy education. Its applicability and effectiveness as a pedagogical framework, however, require further empirical investigation.

In the context of language and communication education, this strategy may be applicable for developing evidence-based argumentation skills, information evaluation, and critical awareness of digital content. Thus, this research suggests potential applications for digital literacy teaching, particularly in higher education contexts and in the learning of English and Indonesian.

This study has several limitations that should be considered when interpreting the findings. First, the analysis is limited to a single public speech delivered by one public figure, Najwa Shihab, which may constrain the transferability of the findings to other speakers, speeches, and communicative contexts. Second, as a

rhetorical criticism study, the interpretation of rhetorical strategies necessarily involves a degree of researcher subjectivity, although the analysis was systematically grounded in the conceptual framework and textual evidence identified in the speech. Third, the study does not incorporate audience-response data; therefore, the findings do not establish whether the rhetorical strategies identified result in changes in audiences' digital literacy, critical awareness, or information-evaluation skills. These limitations also delimit the status of the proposed evidence-based rhetorical invention framework as a conceptual and analytical contribution rather than an empirically validated model. Future research could extend the analysis to multiple speeches and public figures, employ comparative or mixed-method approaches, and incorporate audience-response data to further examine the applicability and potential effectiveness of the proposed framework.

CONCLUSION

This study suggests that evidence-based rhetorical invention in Najwa Shihab's public speeches functions not only as a rhetorical strategy for persuasion but also as an epistemic mechanism contributing to the development of critical digital literacy. Through an analysis of her speech "Youth and Literacy Awareness in the Digital Era," this study found that the invention process is constructed through three main strategies: statistical reasoning, academic and institutional authority, and public pedagogy, which links digital literacy concepts to the audience's everyday experiences. These three strategies demonstrate that the production of arguments in the digital public sphere is inextricably linked to the practice of selecting, validating, and transforming evidence into widely accessible knowledge. In this context, rhetorical invention operates not only within the realm of classical rhetoric as a process of finding arguments but also develops into an epistemic literacy practice that mediates the relationship between scientific knowledge and public understanding in the digital age. This research finding also reinforces the view that digital literacy in Generation Z cannot be assumed to develop automatically through exposure to technology. Rather, digital literacy is a critical competency that requires reinforcement through a systematic, reflective, and evidence-based educational process. Thus, evidence-based rhetorical invention may be understood as a conceptual approach that bridges the gap between digital technical skills and critical thinking skills in dealing with complex information flows. Pedagogically, this research implies that evidence-based rhetorical strategies, as used in public speaking, can be adapted in English language learning, particularly in developing argumentation skills, academic speaking, and critical digital literacy. The use of empirical data, scientific authority, and linking concepts to real-life experiences can serve as a learning model that encourages students to understand language not only as a means of communication but also as a means of epistemically responsible knowledge production. Thus, this research contributes to the expansion of rhetorical invention studies in digital contexts, offering the perspective that rhetoric functions not only as an art of persuasion but also as a pedagogical instrument with potential relevance to critical digital literacy in contemporary language education.

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