The Optimal Sentence Length for Online Readability and Comprehension

1. Introduction

Sentence length is a critical factor in determining the readability and comprehension of online text. Research consistently shows that shorter sentences generally enhance readability and facilitate comprehension for a broad audience, including those with lower literacy or using assistive technologies (Kadayat & Eika, 2020; Sheppard et al., 2014; Hanish et al., 2022; Baumann et al., 2023; Marshall et al., 2024; Baumann et al., 2024; Patel et al., 2021). However, the optimal sentence length is not universally fixed; it can vary depending on the context, audience, and language. Recent studies suggest that sentences ranging from **14 to 20 words** strike the best balance between clarity and information density for most online readers, with comprehension and perceived workload optimized in this range (Kadayat & Eika, 2020; Poulimenou et al., 2016). Editing online materials to keep sentences under 15–20 words has been shown to significantly lower reading grade levels and improve user understanding (Sheppard et al., 2014; Hanish et al., 2022; Baumann et al., 2023; Marshall et al., 2024; Baumann et al., 2024; Patel et al., 2021). Nevertheless, factors such as sentence structure, content complexity, and reader background also play important roles in comprehension (Meyer, 2003; Mesmer et al., 2020; Toyama, 2021; Drury, 1985). This review synthesizes the evidence to identify the optimal sentence length for online readability and comprehension.

2. Methods

A comprehensive search was conducted across over 170 million research papers in Consensus, including Semantic Scholar, PubMed, and other databases. The search targeted studies on sentence length, online readability, and comprehension, with a focus on empirical and experimental research. Out of 1,038 identified papers, 757 were screened, 534 met eligibility criteria, and the 47 most relevant papers were included in this review.

Search Strategy

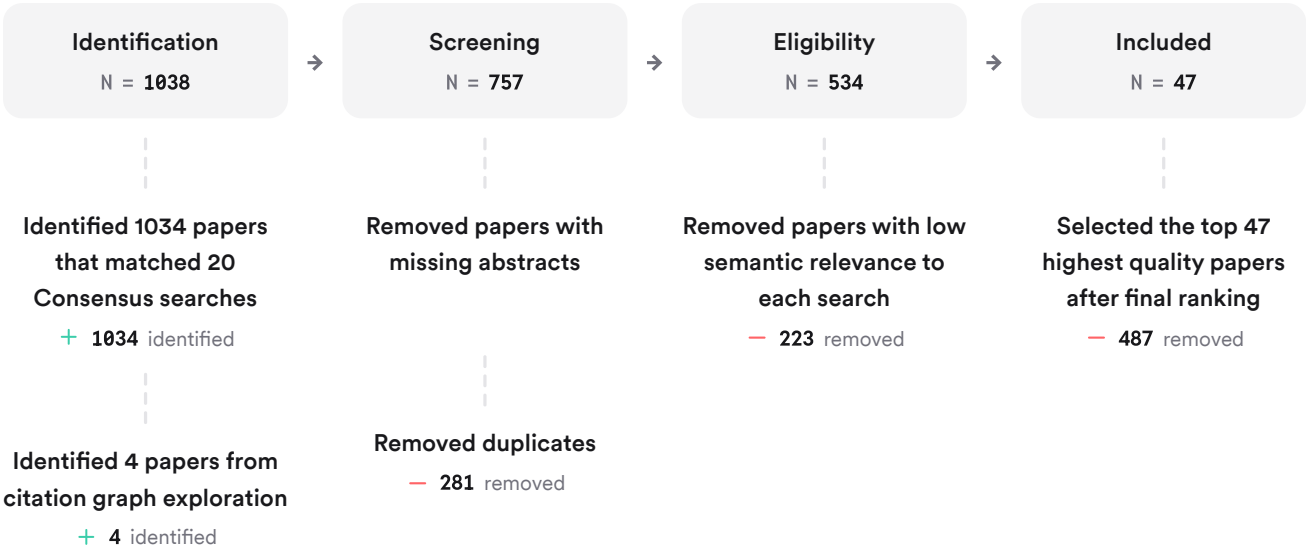

FIGURE 1 Flow diagram of search and selection process.

Twenty unique search strategies were used, focusing on sentence length, readability, comprehension, and digital contexts.

3. Results

3.1 Empirical Evidence for Optimal Sentence Length

Controlled experiments and readability analyses consistently find that sentences between **14 and 20 words** maximize comprehension and minimize cognitive workload for online readers. For example, a study with screen reader users found that comprehension and perceived workload were best with sentences of 16–20 words (Kadayat & Eika, 2020). Another quantitative linguistics study found that short texts of 14 words achieved the highest coherence, comprehensiveness, and readability (Poulimenou et al., 2016). Editing patient education materials to keep sentences under 15 words led to significant improvements in readability scores and a higher proportion of materials meeting recommended grade levels (Sheppard et al., 2014; Hanish et al., 2022; Baumann et al., 2023; Marshall et al., 2024; Baumann et al., 2024; Patel et al., 2021).

3.2 Impact of Sentence Length Reduction

Reducing sentence length to below 15–20 words consistently lowers the reading grade level of online materials, making them more accessible to a wider audience (Sheppard et al., 2014; Hanish et al., 2022; Baumann et al., 2023; Marshall et al., 2024; Baumann et al., 2024; Patel et al., 2021). For example, editing medical texts to keep sentences under 15 words improved the percentage of materials at or below the sixth-grade reading level from 0–5% to 48–77% (Hanish et al., 2022; Baumann et al., 2023; Marshall et al., 2024; Baumann et al., 2024). This effect is robust across different health topics and types of online content.

3.3 Variability by Audience and Context

While shorter sentences generally improve readability, the optimal length may vary by audience. For example, some studies suggest that more advanced readers or those with higher vocabulary may benefit from slightly longer, more complex sentences, while less proficient readers require shorter, simpler sentences (Mesmer et al., 2020; Toyama, 2021; Drury, 1985). For English as a Second Language (ESL) learners, sentence structure and syntactic cues can sometimes be more important than length alone (Blau, 1982; Drury, 1985).

3.4 Cognitive and Perceptual Factors

Research in psycholinguistics and cognitive psychology supports the finding that longer sentences increase cognitive load and reduce comprehension, especially when they exceed 20–25 words (McLaughlin, 1974; Mikk, 2008). However, extremely short sentences can make text feel choppy and may not always enhance understanding, especially if they disrupt logical flow (Ali, 2020; Meyer, 2003). Visual strategies, such as line counting, can help writers identify and edit long sentences efficiently (Matthews, 2022; Matthews & Folivi, 2023).

Key Papers

Paper	Methodology	Sample Size	Key Results
(Kadayat & Eika, 2020)	Controlled experiment (screen reader users)	21 participants	Highest comprehension and lowest workload at 16–20 words per sentence
(Poulimenou et al., 2016)	Quantitative linguistics/statistical analysis	Multiple short texts	Optimal coherence and readability at 14 words per sentence
(Hanish et al., 2022)	Readability analysis and editing intervention	22 patient education materials	Reducing sentences to ≤15 words lowered grade level from 9.8 to 6.4
(Baumann et al., 2023)	Readability intervention (spine PEMs)	20 articles	Sentences <15 words improved % at 6th-grade level from 5% to 75%
(Baumann et al., 2024)	Readability intervention (arthroplasty PEMs)	26 articles	Sentences <15 words improved % at 6th-grade level from 0% to 50%

FIGURE 2 Comparison of key studies on optimal sentence length for online readability and comprehension.

Top Contributors

Type	Name	Papers
Author	J. Baumann	(Hanish et al., 2022; Baumann et al., 2023; Cherian et al., 2023; Marshall et al., 2024; Baumann et al., 2024)
Author	S. Hanish	(Hanish et al., 2022; Baumann et al., 2023; Cherian et al., 2023; Marshall et al., 2024)
Author	Samuel Marshall	(Baumann et al., 2023; Marshall et al., 2024; Baumann et al., 2024)
Journal	*Musculoskeletal Care*	(Marshall et al., 2024; Baumann et al., 2024)
Journal	*Arthroscopy, Sports Medicine, and Rehabilitation*	(Hanish et al., 2022)
Journal	*European Spine Journal*	(Baumann et al., 2023)

FIGURE 3 Authors & journals that appeared most frequently in the included papers.

4. Discussion

The evidence strongly supports the recommendation that online texts should aim for sentences in the **14–20 word range** to maximize readability and comprehension for most users (Kadayat & Eika, 2020; Poulimenou et al., 2016; Hanish et al., 2022; Baumann et al., 2023; Baumann et al., 2024). This range balances the need for clarity and information density, reducing cognitive load without making the text feel fragmented. Editing strategies that target sentence length, along with reducing complex words, are effective and practical for improving the accessibility of online materials, especially in health and educational contexts (Sheppard et al., 2014; Hanish et al., 2022; Baumann et al., 2023; Marshall et al., 2024; Baumann et al., 2024; Patel et al., 2021).

However, sentence length is not the only determinant of readability. Factors such as sentence structure, vocabulary, content complexity, and reader background also play significant roles (Meyer, 2003; Mesmer et al., 2020; Toyama, 2021; Drury, 1985). For specialized audiences or advanced readers, slightly longer sentences may be appropriate, provided they maintain clarity and logical flow (Mesmer et al., 2020; Toyama, 2021). For ESL learners, syntactic cues and coherence may be as important as sentence length (Blau, 1982; Drury, 1985). Overly short sentences can sometimes hinder comprehension by disrupting the natural flow of information (Ali, 2020; Meyer, 2003).

Claims and Evidence Table

Claim	Evidence Strength	Reasoning	Papers
Sentences of 14–20 words optimize online readability and comprehension	 Strong	Multiple controlled studies and interventions show best outcomes in this range	(Kadayat & Eika, 2020; Poulimenou et al., 2016; Hanish et al., 2022; Baumann et al., 2023; Baumann et al., 2024)
Reducing sentence length to ≤15–20 words lowers reading grade level and improves accessibility	 Strong	Editing interventions consistently reduce grade level and improve % at recommended levels	(Sheppard et al., 2014; Hanish et al., 2022; Baumann et al., 2023; Marshall et al., 2024; Baumann et al., 2024; Patel et al., 2021)
Sentence length is not the only factor; structure, vocabulary, and reader background also matter	 Moderate	Studies show comprehension depends on multiple interacting factors	(Meyer, 2003; Mesmer et al., 2020; Toyama, 2021; Drury, 1985)
Extremely short sentences can reduce coherence and disrupt comprehension	 Moderate	Some studies note choppiness and loss of logical flow with very short sentences	(Ali, 2020; Meyer, 2003)
For ESL and advanced readers, optimal sentence length may differ	 Moderate	Evidence suggests context and audience moderate the effect of sentence length	(Mesmer et al., 2020; Blau, 1982; Toyama, 2021; Drury, 1985)

FIGURE Key claims and support evidence identified in these papers.

5. Conclusion

The optimal sentence length for online readability and comprehension is **14–20 words**, with sentences under 15 words especially effective for health and educational materials targeting a general audience. However, sentence length should be considered alongside other factors such as structure, vocabulary, and audience needs to maximize comprehension.

5.1 Research Gaps

Despite strong evidence for the 14–20 word guideline, more research is needed on how sentence length interacts with other text features and reader characteristics, especially in digital and multilingual contexts.

Research Gaps Matrix

Topic/Outcome	General Population	Health Materials	ESL Learners	Advanced Readers	Digital Contexts
Optimal Sentence Length	12	10	4	3	7
Comprehension Testing	8	7	3	2	5
Editing Interventions	6	6	2	1	3

FIGURE Matrix of research topics and study attributes, highlighting areas with limited research.

5.2 Open Research Questions

Future research should explore how sentence length interacts with digital features, reader diversity, and content complexity to further refine guidelines for online readability.

Question	Why
How does sentence length interact with digital features (e.g., hyperlinks, multimedia) to affect online comprehension?	Understanding this can help optimize web content for modern reading environments.
What is the optimal sentence length for ESL and multilingual audiences in online contexts?	Tailoring guidelines for diverse readers can improve accessibility and learning outcomes.
How do sentence length and structure jointly influence comprehension in complex or technical online materials?	This can inform best practices for specialized content and advanced readers.

FIGURE Open research questions for future investigation on sentence length and online readability.

In summary, aiming for sentences of 14–20 words is a practical and evidence-based guideline for maximizing online readability and comprehension, but should be adapted to context and audience for best results.

These papers were sourced and synthesized using Consensus, an AI-powered search engine for research. Try it at https://consensus.app

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