BACKGROUND

Health literacy is a critical component of prevention and chronic disease self-management. Health literacy can be improved when education documents are written with understandable language that describes reasonable actions that patients can perform. The Veterans Health Administration (VHA) mandated the establishment of programs designed to improve written documents' understandability, actionability, and readability. Our local VHA implemented a standardized programmatic process improvement that used an evidence-based Plan-Do-Study-Act (PDSA) framework focused on the committee responsible for reviewing and approving these written documents.

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PURPOSE

The purpose of this project was to review and analyze the documents produced by this process improvement and to evaluate its effectiveness in improving the understandability, actionability, and readability of written documents approved for publication.

PERSONAL HEALTH LITERACY

The degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.¹

UNDERSTANDABILITY

Understandability occurs when people across different backgrounds and literacy levels can process and explain key messages contained in educational resources.²

ACTIONABILITY

Actionability occurs when people across different backgrounds and literacy levels know what to do after reading educational resources.²

READABILITY

Readability refers to how easily a document can be read across individuals with various levels of educational experiences and the grade level with which the document is correlated.

PROJECT QUESTIONS

Q1: What were the understandability, actionability, and readability scores of written documents at our VHA facility before the standardized programmatic process improvement was implemented?

<u>Q2</u>: Were there any significant differences between the understandability and actionability scores before and after implementing the programmatic process improvement?

Q3: Were there any significant differences between the readability scores on the Flesch Reading Ease and Flesch-Kincaid Grade Readability Index before and after implementing the programmatic process improvement?

<u>Q4</u>: Were there any significant differences in the Committee members' pre-instruction, post-instruction, and retention selfefficacy scores to review, score, and provide appropriate feedback?

A Retrospective Review of a Local Healthcare Process Designed to Improve Understandability, Actionability, and Readability of Written Documents for Veterans

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METHODS

A pre-intervention, post-intervention, and retention test design was used to answer the project questions.

The Patient Education Materials Assessment Tool for Printable *Materials* was used to measure

Understandability and Actionability. The Flesch-Kincaid Grade Level Readability Index and Grade Level Assessment were used to measure readability.

PROCEDURES

The Veterans Health Education and Information Committee followed four Plan-Do-Study-Act cycles, led by the committee coordinator, that focused on standardizing the approach for reviewing written documents by applying the Patient Education Materials Assessment Tool for Printable Materials and Flesch Readability Formulas until a 90% interrater reliability was achieved with the committee coordinator's scores.

CYCLE 1

- VHEI Coordinator educated Committee members on the review process during a scheduled meeting.
- Committee members completed two seven-item selfefficacy questionnaires (Pre-Instruction and Post-Instruction) where they shared their confidence in reviewing written documents prior to and after education.

CYCLE 2

- Coordinator and Committee members scored a practice document.
- Committee members were expected to score within 90% accuracy of the Coordinator's scores.

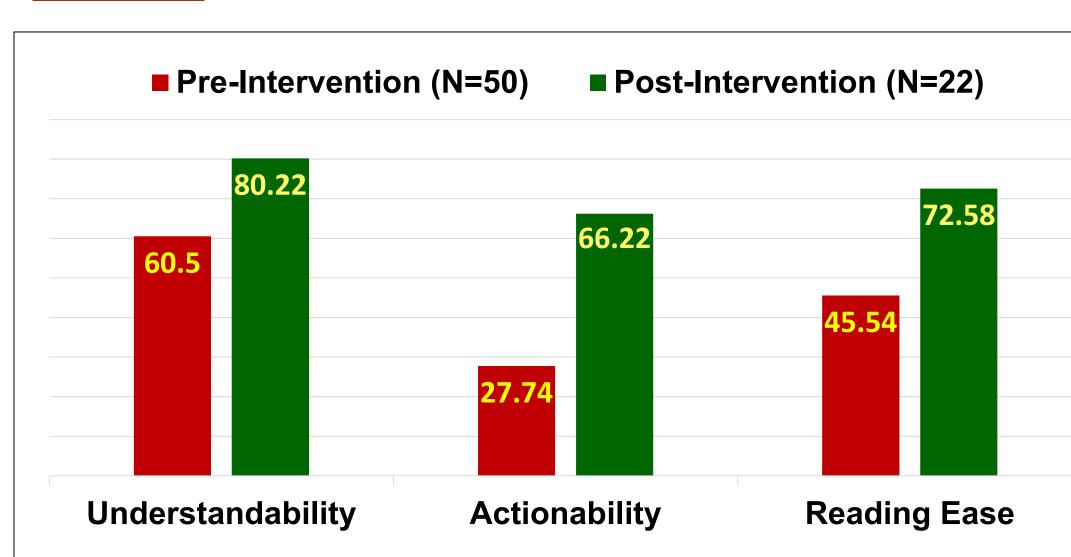
CYCLE 3

- Committee members used the last document successfully scored from Cycle II to demonstrate their ability to prepare appropriate feedback for document originators.
- Committee members' feedback was reviewed until it achieved 90% agreement with the Coordinator's feedback

CYCLE 4

- Committee members scored and provided feedback for a new real document that was submitted by a document originator for review.
- Committee members completed the last self-efficacy questionnaire (Retention) where they shared their confidence in reviewing written documents after the entire experience.

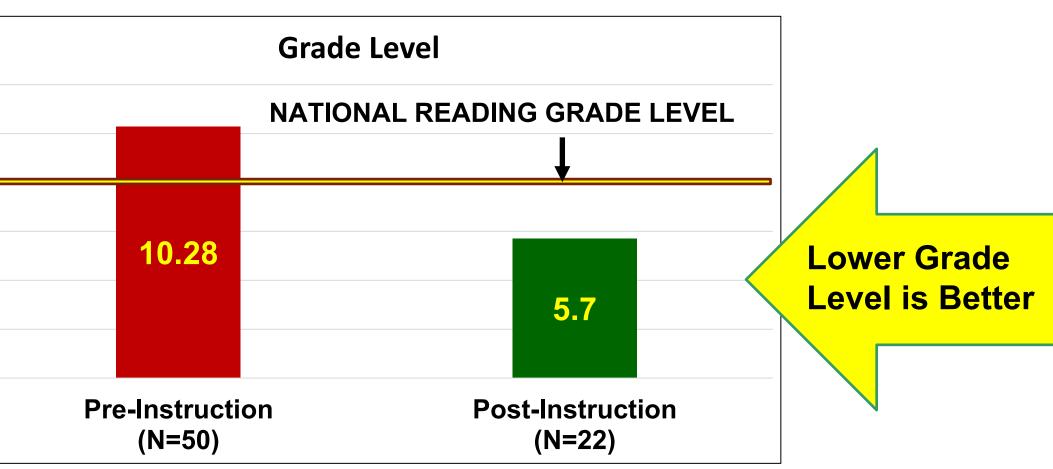
The coordinator also scored 50 written documents that existed before the standardized process improvement was implemented to determine the baseline understandability, actionability, and readability of written documents already in use. Once all the cycles were completed, the understandability, actionability, and readability scores of the next 50 written documents recommended for publishing approval by the committee members were scored by the coordinator in order to compare the scores.

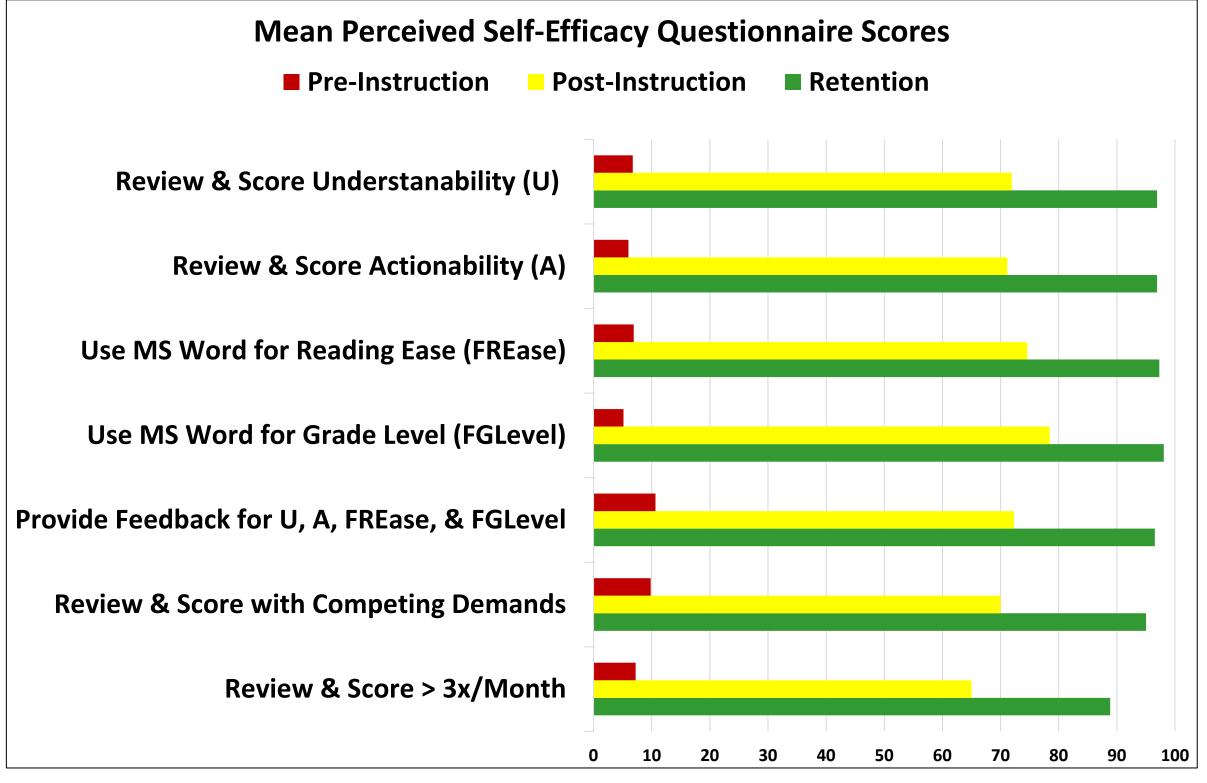


The Mann-Whitney U test indicated the understandability, actionability, reading ease, and grade level of the post-intervention **documents** were statistically significantly higher than the pre-intervention documents (U=169.0, 74.0, 22.0, and 27.5 respectively; **p=<0.001 for each**).

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A Friedman test showed there was a statistically significant difference in the perceived confidence of the Committee members to review, score, and provide feedback on written documents during the pre-instruction, post-instruction, and retention time intervals, (Chisquare=26.0, df=2, p=0.001<0.05).

The **Cronbach's Alpha** for the seven-item questionnaires was $\alpha = 0.796$, demonstrating an **acceptable** internal consistency.

CONCLUSIONS

IMPLICATIONS

CHALLENGES

- Facility-wide upgrade of Microsoft Office 365 changed how the readability statistics were obtained requiring further education for the committee members.
- Flesch-Kincaid readability statistics were auto-calculated using Microsoft Word. Lack of document conversion software to convert other formatted documents into Microsoft Word limited which documents were included in this process improvement initiative.

REFERENCES

ACKNOWLEDGMENTS

- **Review Board**
- FY 23 Veterans Health Education and Information Committee Old Dominion University-College of Health Sciences-Institutional
- Washington DC Veterans Affairs Medical Center-Institutional Review Board and Quality, Safety, & Value Department
- Washington DC Veterans Affairs Medical Center- Quality, Safety, & Value Department





 Understandability, actionability, and readability have improved significantly with the implementation of this process improvement initiative.

• This initiative expectedly satisfied the VHA mandate for improving the understandability, actionability, and readability of documents by implementing a standardized review and approval process.

• Other healthcare organizations concerned with improving the understandability, actionability, reading ease, and grade level assessment of their written documents may also benefit from a similar process improvement to standardize the review process.

• To sustain this process, efforts to update all pre-intervention documents through this standardized process are underway.

Attrition of Committee members.

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2. Shoemaker, S. J., Wolf, M. S., & Brach, C. (2014). Development of the patient education materials assessment tool (PEMAT): A new measure of understandability and actionability for print and audiovisual patient information. Patient Education and *Counseling*, *96*(3), *395–403*. https://doi.org/10.1016/j.pec.2014.05.027

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