

BACKGROUND

Health literacy is a common problem in the U.S., affecting over 80 million people (1). While health literacy is a complex concept that includes many components, print prose and print document literacy are two skills that are essential for health literacy so that patients can understand written health information (2). Written health information can be found in all areas of health and includes medical instructions, prescription medication information, health education about diseases, behaviors, and/or treatment options, patient history and admission forms, informed consent materials, and many other examples. It is well documented that there is a mis-match between the typical reading level of written patient health information and the average reading skill level of patients (3-5). This project was designed to reduce the literacy demands on patients at a large academic medical institution and partnering state health agencies in Arkansas. By training graduate students, the UAMS Plain Language Training Project is building a future workforce of health professionals with these skills.

PURPOSE

The purpose of this health literacy training project was to:

1. Address the need for more health professionals with skills to assess written health materials;
2. Edit existing materials to reduce literacy demands on patients; and
3. Create plain language health materials for patients and the public.



METHODS

SAMPLE:

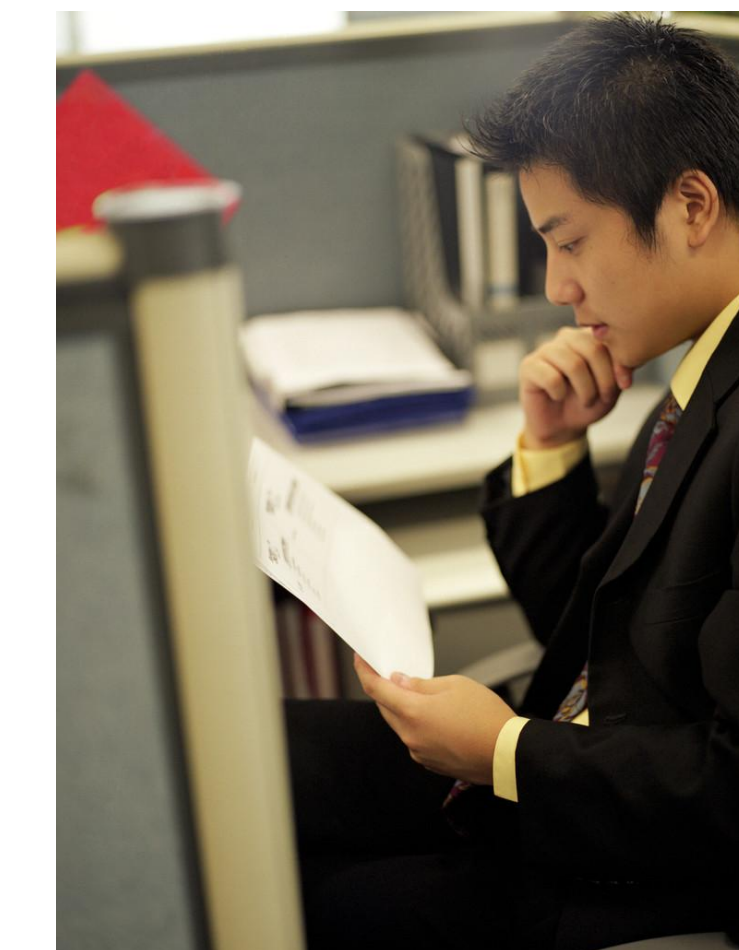
Documents were received from UAMS Regional Family Medical Centers, the Arkansas Department of Health, the Arkansas Insurance Department, public health outreach programs, and other Arkansas public health agencies.

PROCEDURE:

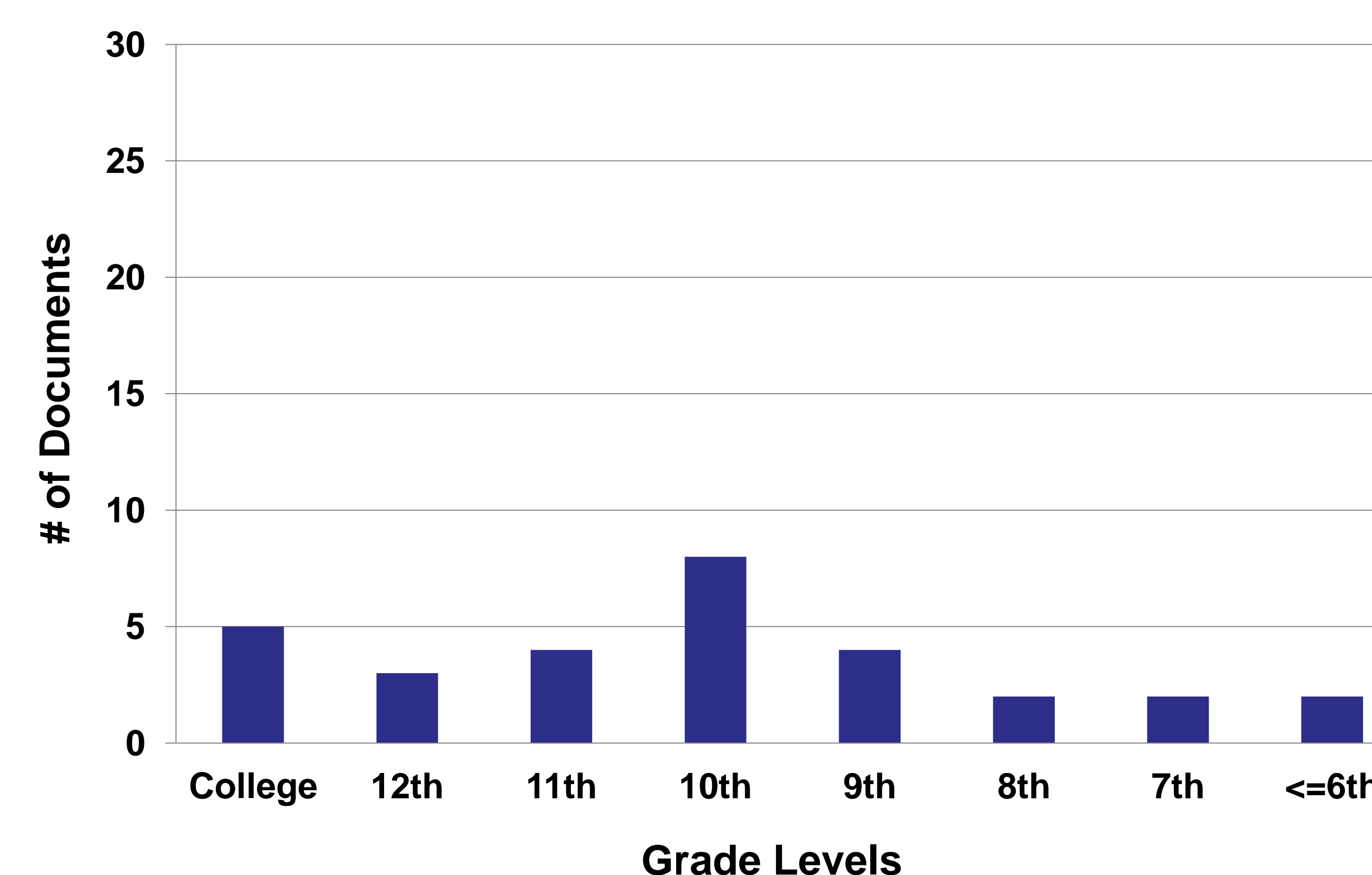
Each student completed an education and training module on health literacy followed by instruction on readability assessment/evaluation and applying guidelines for plain language to written health materials. Upon completion of training, skill building activities were initiated that targeted readability assessment, plain language editing, and basic formatting for ease of use and understandability. The documents were assessed and edited for readability using tools demonstrated in initial training. After the readability assessment was complete, the original document was "stamped" with the results (e.g. Fry-based Grade Level, Precise Smog Index, Flesch Reading Ease Score, Coleman-Liau Index, FORCAST Readability Grade and FORCAST Readability Grade).

ANALYSIS

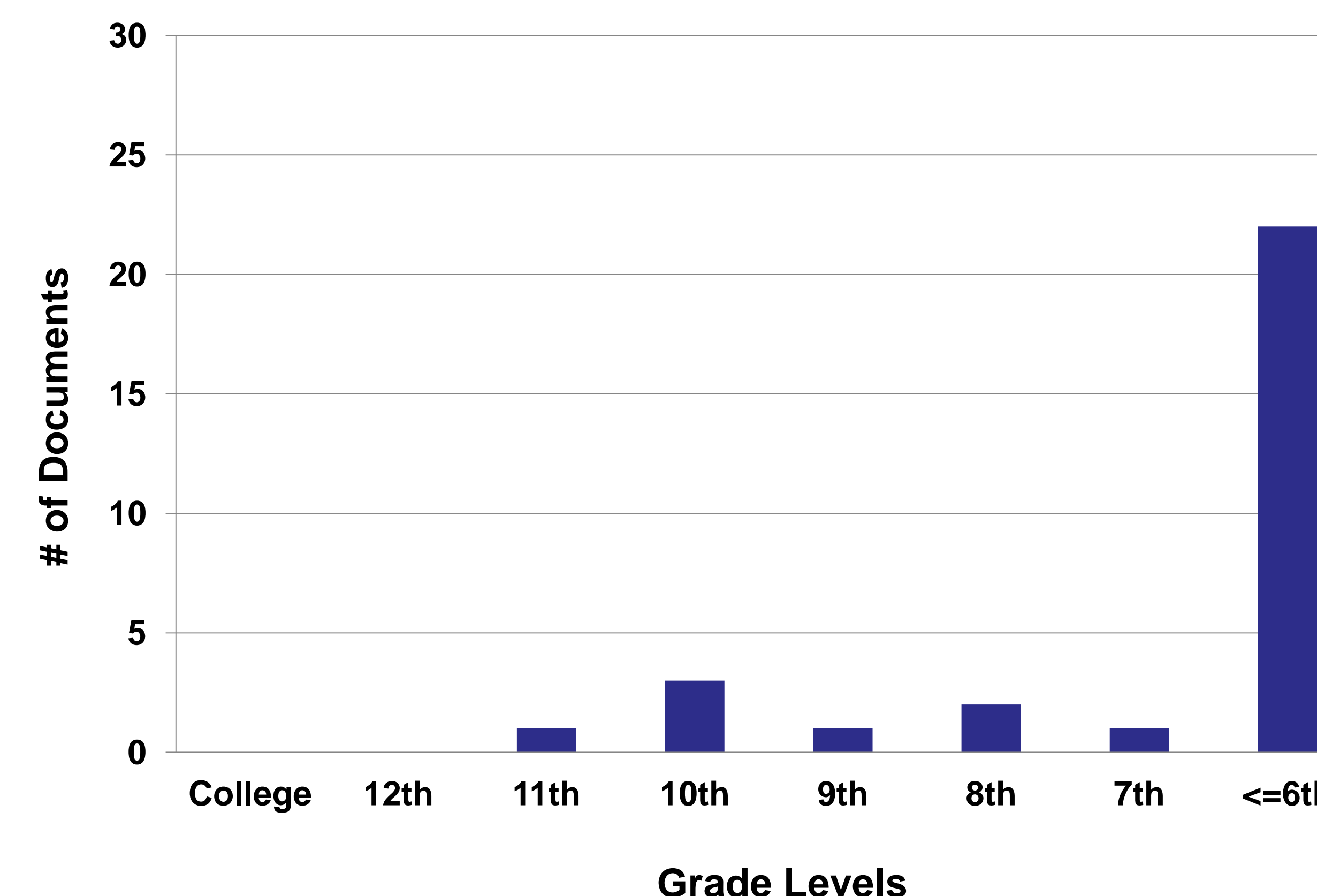
When the final document version was approved by the supervisor, the student completed a summary that detailed the following: the original and final readability assessment results, an overview of the types of plain language edits made, limitations, and formatting suggestions. A common limitation was the use of terms for which there are no plain language substitutions, but that can be more easily understood with explanation. These explanations may not have improved the reading grade level, but may have improved the ease of understanding. The majority of original readability scores of the documents received was from 10th grade to college level. These documents were edited so that the average reading level of 73% of the revised documents was at 6th grade level or better.



Document Levels Before Student Edits



Document Levels After Student Edits



RESULTS (N=30)

The majority of readability scores of the documents received was from 10th grade to college level. These documents were edited so that the average reading level of 73% of the revised documents was at 6th grade level or better.

Reading Level	# Documents Before Editing	% Documents Before Editing	# Pages Assessed	# Documents After Editing	% Documents After Editing
College	5	16.7%	49	0	0%
12 th Grade	3	10%	77	0	0%
11 th Grade	4	13.3%	25	1	3.3%
10 th Grade	8	26.7%	22	3	10%
9 th Grade	4	13.3%	4	1	3.3%
8 th Grade	2	6.7%	2	2	6.7%
7 th Grade	2	6.7%	11	1	3.3%
<=6 th Grade	2	6.7%	6	22*	73.3%
Total # of Documents	30	100%	196	30	100%

* Two documents were at 6th grade level at receipt and did not require editing.

CONCLUSIONS

- The value of free versus proprietary readability tools was appreciated; Health Literacy Advisor® was purchased and used as a preliminary training resource because it has enhanced tools for plain language editing that were useful for beginning students, but free tools were used toward the end of the training because they are more accessible in the field.
- The nonsynchronous nature of the training program was key to providing needed flexibility and resulted in student satisfaction and timely completion; students used the project to fulfill a variety of experiential learning requirements.
- Trainees who have completed the program report that the skills developed can't be "turned off." They report that they continuously and almost subconsciously assess everything that they read and apply concepts learned.

REFERENCES

1. Institute of Medicine. How can health care organizations become more health literate. National Academy of Sciences 2012; Available from: URL:<http://www.iom.edu/Reports/2012/How-Can-Health-Care-Organizations-Become-More-Health-Literate.aspx>
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5. McNeal B, Salisbury Z, Baumgardner P, Wheeler FC. Comprehension assessment of diabetes education program participants. Diabetes Care 1984;7:232-5.