Text Complexity Analysis

Text complexity analysis			
Created by:	Donald Mason	**Event/Date:**	Teachfest Hartford, July, 2014
Text and Author	"Even medical devices are not safe from cyber crime" Medill News Service, editing by Newsela Staff	**Where to Access Text**	https://newsela.com/articles/medical-hackers/id/4020/

Text Description
Network security experts weigh in on the potential threat to human safety and public confidence in devices such as defibrillators, pacemakers, insulin pumps that are implanted yet could be vulnerable to hackers who create computer code that may give the owner a fatal dose.

Quantitative			
Lexile and Grade Level	1150L Grade 8	**Text Length**	882 Words

Qualitative	
Meaning/Central Ideas	**Text Structure/Organization**
Many medical devices are IP connected, therefore susceptible to hacking by malicious people, so much so that lives could be in danger. Medical device manufacturers have been slow to react to this potential threat. This is also an opportunity to open a discussion about Internet privacy and online safety.	News article with inverted pyramid – most important information in first 3 paragraphs so that editors can trim article without major rewriting. Also, bolded headings break the article into discreet sections.
Prior Knowledge Demands	**Language Features**
Students should know of the extent of IP connected devices, the Internet of Things, malware, hacking and persistent computer threats. Students would also benefit from knowing specific medical terms, or at least be aware of the importance of on-line monitoring of medical conditions.	Reading level is approachable for all students in my classroom, with enough Tier 3 words to make this text useful to my Information Systems Technology classroom.

Potential Reader/Task Challenges
Students may not understand some of the technical terms, and would require additional direct teaching to be able to understand the gravity of the problem.

Big Takeaway
RL 9-10.2 Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

Vocabulary Analysis

	Words that demand less teaching time (i.e. the definition is singular and concrete)	Words that demand more teaching time (i.e. words with multiple meanings and/or that are part of a word family)
Words that can be determined in context	• connected • malfunctions • defibrillators • antibiotics • information leaks	• hack • cyber criminal • cyber-intrusion • scrambled • financial incentive • disabled • code
Words that cannot be determined in context	• Quantify • Radar screen • Compromised • Delusions of Grandeur	• **Unsecured Systems** • **Network Databases** • **vulnerabilities**