

# RENAISSANCE

WHITE PAPER | MAY 2022

## Research Foundation for myON



Reports and screens are regularly reviewed and may vary from those shown as enhancements are made.

All logos, designs, and brand names for Renaissance's products and services, including but not limited to myON and Renaissance, are trademarks of Renaissance Learning, Inc., and its subsidiaries, registered, common law, or pending registration in the United States and other countries. All other product and company names should be considered the property of their respective companies and organizations. MetaMetrics and Lexile are trademarks of MetaMetrics, Inc., and are registered in the United States and abroad.

© 2022 by Renaissance Learning, Inc. All rights reserved. Printed in the United States of America.

This publication is protected by U.S. and international copyright laws. It is unlawful to duplicate or reproduce any copyrighted material without authorization from the copyright holder. For more information, contact:

RENAISSANCE  
P.O. Box 8036  
Wisconsin Rapids, WI 54495-8036  
(800) 338-4204  
[www.renaissance.com](http://www.renaissance.com)  
[educatordevelopment@renaissance.com](mailto:educatordevelopment@renaissance.com)

05/22

# Contents

- 4 Introduction
- 5 How myON Works
- 7 Research Supporting myON
- 15 Data and Progress
- 16 Conclusion
- 17 References

## Figures

- 6 Figure 1. myON Student Profile displays students' individual Star Reading score and ZPD range
- 6 Figure 2. Details tab for each book in myON library displays key book information
- 10 Figure 3. myON book excerpt showing dynamic highlighting paired with text-to-speech audio
- 11 Figure 4. Example of myON on-demand definitions and Journal tool
- 12 Figure 5. Example of a myON Project
- 14 Figure 6. Example of news articles in myON

## Introduction

It has been well established that reading achievement and frequency of reading are two leading factors that contribute to long-term success for students. However, a significant barrier to reading is access to reading materials. To engage fully with reading, students need easy access to books and texts at appropriate reading levels and covering topics that peak their interests.

Renaissance myON ([www.myon.com](http://www.myon.com)) is a student-centered, personalized literacy platform that offers unlimited access to thousands of enhanced digital books as well as myON News, which gives students authentic, age-appropriate reporting on timely topics and current events.

The goal of Renaissance myON is to strengthen students' reading comprehension skills while stimulating a love for reading. To reach those goals, myON was developed based on three (3) key principals:

**Accessibility:** myON strives to make reading easily accessible to all students through a wide library of digital books. It also features tools such as text-to-speech support and text annotation that allow students at all levels to develop important reading skills and strategies.

**Autonomy and Differentiation:** The goal of any literacy tool is to make students autonomous readers. myON offers many tools to help students develop their reading skills, work within their skill level, and make steps towards autonomy. myON provides access to thousands of books in that cover a wide range of interests and skill levels, and students are offered periodic interest questionnaires to drive the information displayed on their personalized Student Profile dashboard. The program's text-to-speech and annotation tools help students gain confidence in reading.

**Feedback and Learning Analytics:** Students can watch their individual reading skills grow through their personalized dashboard as they read books, complete book quizzes, and periodically take the myON placement test during the school year. Teachers also have access to student- and class-level data to inform lesson plans and interventions.

myON offer students a positive and supportive reading environment and provides teachers with actionable data to inform instruction and interventions. Let's explore the research behind myON and how the program is used to facilitate student reading and effectively support students' progress.

## How myON Works

On myON, after taking a Star Reading placement test<sup>1</sup>, students are matched to books based on reading level, grade-level appropriateness, and interests. Teachers can assign specific books and encourage students to self-select reading materials from up to 18,000 digital books for grades pre-K–12 in multiple formats (including graphic novels and picture books) and at various reading levels (from high-low books to advanced-learner materials) from popular fiction and series, nonfiction focused on curriculum-aligned topics, and texts in Spanish, British English, Chinese, Welsh, and Haitian Creole.

Using a robust set of interactive literacy tools, students interact deeply with reading materials in myON, while teachers easily monitor engagement, growth, and literacy success. myON includes helpful reports for educators and a Student Profile dashboard detailing individual reading activity for students and caregivers.

### Readability Measures

The ATOS Readability Formula and the Lexile Framework® for Reading are two measures of text complexity used in myON. Both ATOS and Lexile put readers and texts on the same scale to help in matching students to books at individualized difficulty levels.

ATOS considers three key predictors of text difficulty: average sentence length, average word length, and average word-difficulty level, and reports reading levels on a grade-level scale that is easily interpretable and translatable between books.<sup>2</sup> A student's ZPD range comprises a range of ATOS readability levels within which a student can successfully read a book or text without becoming bored by material that is too easy or frustrated by material that is too difficult.<sup>3</sup>

The Lexile Text Analyzer evaluates a text's reading level by measuring characteristics such as sentence length and word difficulty to determine a Lexile measure—which can range from below 0L for beginning readers to above 1600L for advanced texts.

To assist students and teachers, myON displays each student's Star Reading score (from the placement test) and ZPD range (a range of ATOS readability levels) at the top of the Student Profile snapshot (see figure 1).

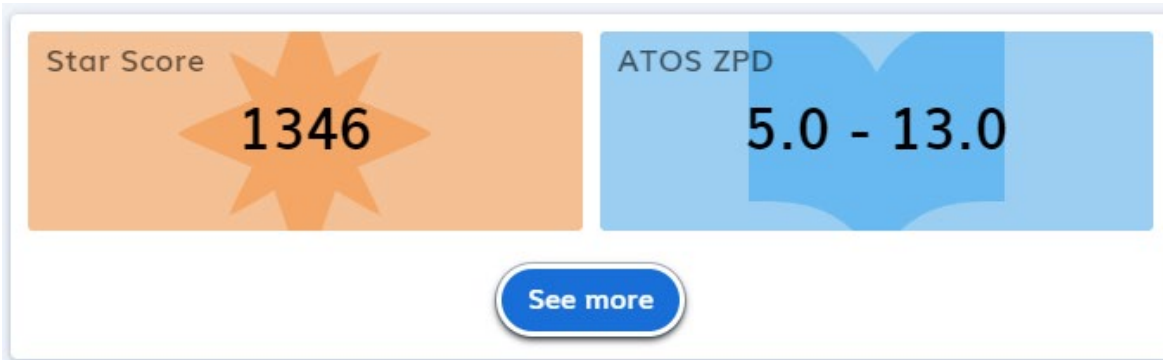
---

1 For more on the Star Reading assessment, visit <https://www.renaissance.com/products/star-reading/>. On myON, students may retake the placement test every 90 days for updated book recommendations as their reading skills grow.

2 For example, an ATOS book level of 5.4 indicates text a typically performing fifth-grade student could likely read and understand by about the middle of the school year.

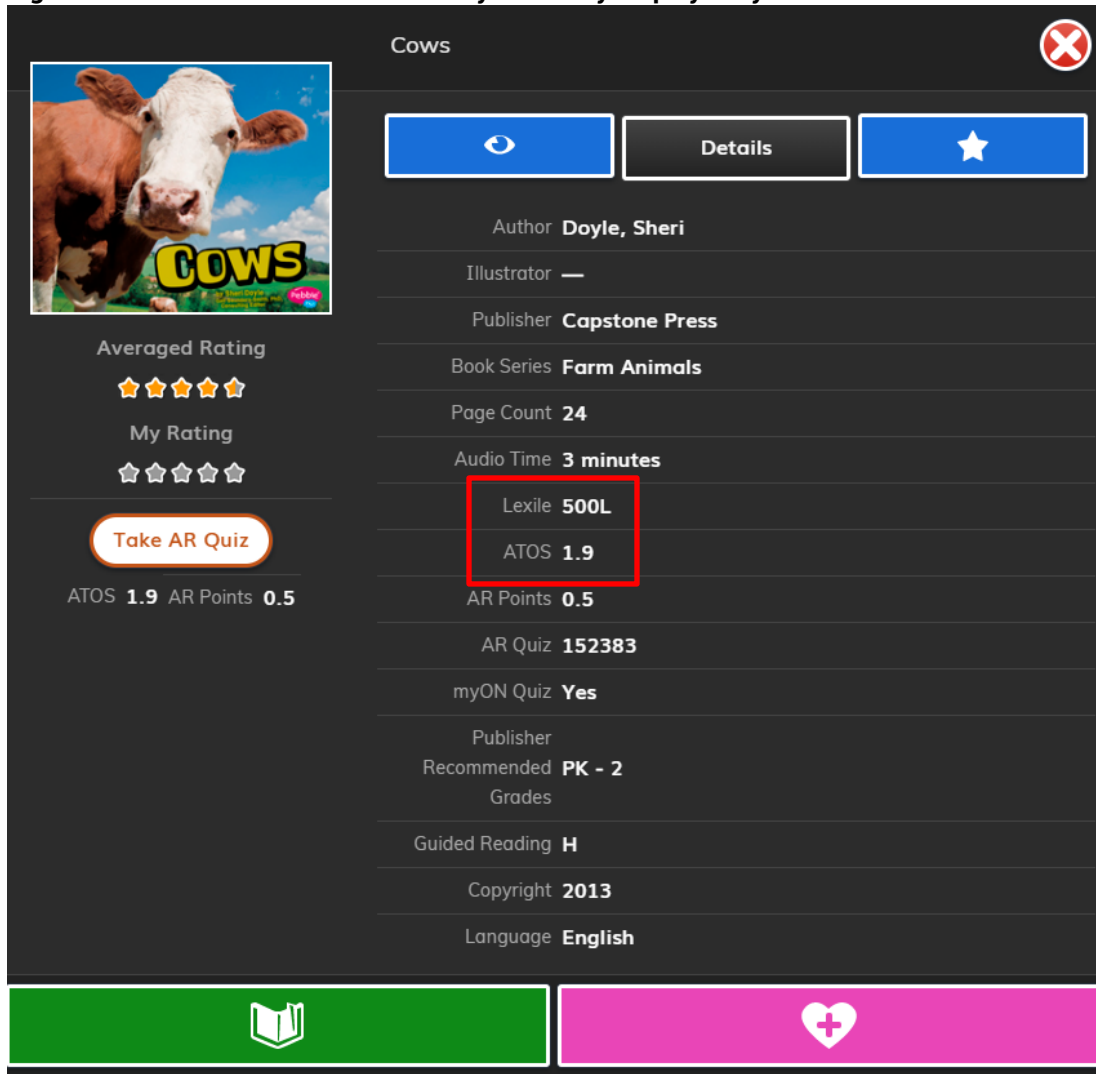
3 ZPD is a concept inspired by Lev Vygotsky, a philosopher and psychologist, who suggested that students require an optimal learning environment to grow (Vygotsky, 1978).

Figure 1. myON Student Profile displays students' individual Star Reading score and ZPD range



As shown in figure 2, each book on myON includes a Details tab with book information, including ATOS and Lexile levels, for students to reference while selecting books to read.

Figure 2. Details tab for each book in myON library displays key book information



## myON Recommendation Algorithm

myON's recommendation algorithm considers two main factors in displaying books for students in their personalized Student Profile: (1) the student's individual reading history, and (2) overall recommendations for each myON user. For example, when a student finishes a book, they are asked to rate it, and then the algorithm presents books to students with a similar ZPD range who tend to rate books similarly and read within similar topics areas.

## myON and Lesson Planning

Teachers use myON in a variety of ways to support their lesson plans. First, teachers can assign specific books for students to read as part of a unit, or to focus on specific reading strategies, either during class time or later for homework. Assigning books through myON allows teachers to track students' progress and ensure they are truly reading. Teachers can view students' journals and notepads in the program to see what annotations have been made and which words they may be struggling with. Using this information, teachers can adjust their lesson plans as needed, such as by focusing on particular sight words or reinforcing new vocabulary words.

myON effectively supports literacy instruction by placing a robust digital library at students' fingertips and supporting teachers with key reading data. Students can access books anywhere they have internet and easily access books by reading levels and personal interests.

## Research Supporting myON

### The Matthew Effect and Self-Efficacy in Reading

In reading, the relationship between motivation and skill development is bidirectional (Morgan & Fuchs, 2007; Taboada et al., 2009), the two working in a continuous cycle with various mediating variables that can create a wide gap between students with high and low reading abilities. Students with stronger reading skills read more—and as a result, gain greater reading skills. Conversely, students with weaker reading skills are likely, without intervention, to read less—and as a result, miss opportunities to improve their reading skills.

This idea is often explained as “the rich get richer, and the poor get poorer,” and was coined the *Matthew Effect* by sociologist Robert K. Merton in 1968. This effect suggests there are extensive individual differences causing disparities between groups, and in reading, these differences compound upon each other pushing students to polar ends of the reading achievement spectrum.

However, student self-efficacy, the more confident students feel about their reading skills, can help to motivate students to strive to read more. Guthrie et al. (2005) suggest that situational motivation can result in long-term general intrinsic motivation (e.g., students read because they genuinely want to and understand its benefit). Therefore, it is important to ensure that students are set up for success every time they read, such as with a supportive reading program like myON.

**myON supports teachers as they work to engage students in meaningful reading practice and provide them opportunities to increase their reading, and in turn, their reading achievement.** Reading is a skill (Perfetti et al., 2005) and as with any other, skill practice (coupled with reinforcement and feedback) makes progress. Making sure that students are interested and engaged in their reading will foster more successful reading experiences, in turn increasing one's self-efficacy (Gurthrie & Wigfield, 2017) and ultimately their reading success.

### **Text Exposure and Home Environment**

While a variety of factors contribute to students' reading achievement, myON allows teachers to benefit from parent-child interaction and students' work outside the classroom. Parents have an enormous influence on a student's reading acquisition skills (Mol & Bus, 2011). For instance, student reading achievement advances as parents use more and different words at home (Weisleder and Fernald, 2013) and provide additional age-appropriate books (Halle et al., 1997). Providing guided and student-selected reading contributes to development of students' literacy self-efficacy (Wigfield & Gurthrie, 1997) and motivation to read (Rogayan et al., 2021), which projects children toward accelerated achievement.

Home environment plays a huge role in a student's early literacy journey. For example, time spent by caregivers talking or reading to their children contributes to reading achievement, specifically in phonemic awareness and vocabulary development (Weisleder & Fernald, 2013; Bus et al., 1995). However, it is not always easy to provide an enriching at-home literacy environment. Socioeconomic status can affect the availability of age-appropriate books in the home and the likelihood a parent can spend time reading to their children (Halle et al., 1997). Lower income families may not be able to provide books in the home nor live close to a library or bookstore (Neuman & Celano, 2001). Further, libraries in low-income neighborhoods are often extremely underfunded, making it difficult for students to find books that fit their skill and interest levels.

Limited access to books worsens during the summer months when school libraries may have limited hours and students lack guaranteed transportation (Hayes & Grether, 1969; Halle et al., 1997). In fact, summer break accounts for more than half of the variability in the disparity between high- and low-income students' reading abilities (Alexander et al., 2007). Echoing the Matthew Effect, increased skills, motivation, and confidence that is developed throughout the school year can increase the likelihood that high-achieving students will read voluntarily outside of school and during the summer, but the opposite is true for low-achieving students (Allington et al., 2010).

**myON helps students take control of their reading, providing easy, instant access to thousands of digital books spanning an array of reading levels and topic areas.** Students can read on myON anywhere they have internet access—on their computers, tablets, or even their smart phones. Thankfully, according to the National Center for Education Statistics (NCES, 2020), 95% of students report having access to the internet, and 88% report having access to a computer.



## **Autonomy, Accessibility, and Motivation in Reading**

In reading, teachers support students as they journey towards becoming independent readers. Autonomy is motivating (Guay et al., 2001); when students are encouraged to pick books that interest them or they complete a book on their own, they are more motivated to continue reading. As a result, their skills and confidence improve further, helping them to make even greater steps towards autonomy.

myON increases reading motivation and develops student autonomy by putting students in control of their reading, through easy access to reading materials searchable by criteria such as topic, genre, and reading. Accessibility is crucial to autonomy, but it does not only pertain to physical access to a book. myON also prioritizes disability compliance and adheres to the Web Content Accessibility Guidelines (WCAG). What's more, if students encounter books where they have difficulty understanding the material—with too many words and text structures they do not understand—**myON offers tools to help students successfully comprehend the text, including text-to-speech and target word pronunciations and definitions.**

### ***Text-to-speech***

Text-to-speech is computer-synthesized or voice-recorded audio paired with text (Biancarosa & Griffiths, 2012). Text-to-speech assists with comprehension, regardless of whether students are above- or below-average readers (Leong, 1992). Reading along while listening helps students spend less time decoding individual words, instead focusing their efforts on using referential contextualization to facilitate comprehension, which then in turn, supports development of decoding skills (Wood et al., 2018).

Robbins and Ehri (1994) studied the effects on vocabulary development of reading books aloud to kindergarten students and found that listening to books read aloud helped students understand unknown words better. Chang and Millett (2015) and Chang (2009) revealed that students using audio-assistive tools to support extensive reading (reading books rather than passages) showed significantly greater growth on reading rate and comprehension measures compared to the students who just read silently.

As with reading skills and motivation, phonological awareness and reading acquisition have a reciprocal relationship. For students who are struggling readers, lack of practice, deficient decoding skills, and difficult materials result in unrewarding early reading experiences that lead to less involvement in reading-related activities (Merton, 1986). If students have deficits in phonological skills, text-to-speech tools not only strengthen and support development of these skills, but also increase efficiency of skill development (Chang & Millett, 2015; Disseldorp & Chambers, 2002; Hale et al., 2005; Hawkins et al., 2015; Wood et al., 2018), helping to fill in gaps and catch students up to their peers.

Likewise, Wood et al. (2018) conducted a meta-analysis of research on text-to-speech tools with students with reading disabilities and found that students who used the support tool showed significant growth with reading comprehension, regardless of how the text was presented (read or automated) or skill level/need (text difficulty, ability to replay recording, or decoding needs).

myON includes text-to-speech to aid in student reading comprehension. Students using myON can follow along as the text is read to them, and then practice decoding and word recognition, all with the support of the program. **Most books in the myON library have pre-recorded audio tracks that students can listen to as they read the book, paired with dynamic highlighting so that students can follow along** (see figure 3). Seeing and hearing the words help students practice decoding and word recognition too.

**Figure 3. myON book excerpt showing dynamic highlighting paired with text-to-speech audio**

There should be a law against homework.  
After a hard **day** of goofing off in school, I  
shouldn't have to do more hard work. And I try  
very hard not to. But trying very hard to avoid  
work is hard work.

### ***Target word pronunciations and definitions***

As students read, they may encounter words they are unfamiliar with, where they need additional help beyond using context clues to define. Merton (1986) documented the use of an online learning tool in a study by McConkie and Zola (1985), which allowed students to select words they did not recognize, could not decode, or did not know the meaning of. The program would read the word aloud to the student, which helped these struggling readers successfully read grade-level text.

In a study Reinking and Rickman (1990), students were given access to a computer program that defined target words within the program or allowed to jot down unknown words to look up later. When compared to classmates who did not have these supports, students in the treatment group showed significantly more growth on comprehension measures. Additionally, students using the computer program were more likely to investigate unknown target words than students who down unknown words. **myON provides vocabulary support by allowing students to click on unfamiliar words for pronunciations and definitions.**

### **Annotations, Projects, and Student Reflection**

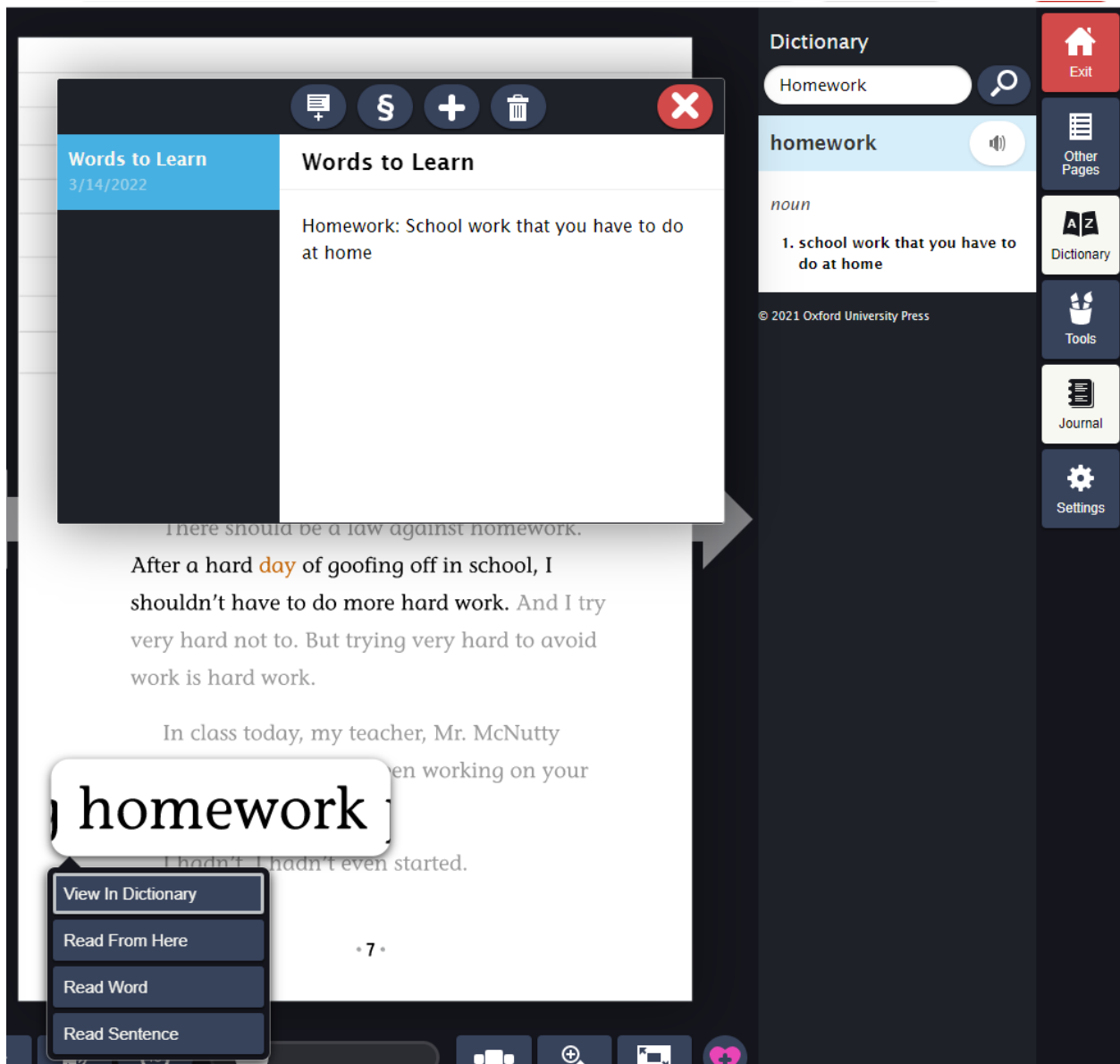
Autonomous readers actively participate in reading by taking notes, completing projects, and reflecting on what they have read.

Encouraging students to use text annotations while reading can help them to slow down and ensure they truly comprehend what they read (Porter-O'Donnell, 2004). Creating a habit of annotating and actively reading at an early age is beneficial to students later as text becomes more complex. Tseng et al. (2015) suggested that adding summary notes and marking text

information is helpful for students, especially English language learners, because it scaffolds comprehension and recognition (in either English or their native language), allowing students to review text without having to re-read it.

**As students read books on myON, they are encouraged to make text annotations.** They can make notes in the program and mark up books by highlighting sentences, circling phrases, and underlining words. When students find an unfamiliar word and click on it for its definition, they are encouraged to write the word and meaning in their myON Journal (see figure 4).

**Figure 4. Example of myON on-demand definitions and Journal tool**



**Teachers curate lessons called Projects on myON that allow students to work individually and collaboratively, while encouraging them to think critically about the books they have read.**

Teachers can assign books and corresponding activities as projects and can assign different projects to each group of students. For example, a teacher can pick a book focused on a specific standard and then choose an activity, such as a Venn Diagram or a KWL (Know, Want, Learned) chart to have students record their thinking and take notes as they read (figure 5).

**Figure 5. Example of a myON Project**

The screenshot shows the 'Editing project' interface for a project titled 'Sharks'. At the top right, there is an orange 'changes made' button and a blue 'Save' button. The form is divided into several sections:

- Title:** A text box containing 'Sharks'.
- Due:** A date picker set to '2022-03-22'.
- Description (Not Shown to Students):** A text box containing 'Learning about sharks at all different levels'.
- Tags:** An empty text box with an 'Add' button.
- Shared:** A checkbox labeled 'Mark as Shared' is checked. Below it is a note: 'Sharing your project will make it available to other myON teachers in accordance with the sharing policy for your school district. Sharing projects will not affect your project or its assignment to students.'
- Recommended Grade Level:** Two dropdown menus showing '2nd Grade' and '3rd Grade'.
- Project Objective:** A text box containing 'Students will pick the book within their ZPD range about sharks and the complete a KWL to show what they've learned.'
- Add Tasks:** A section with icons and labels for 'Reading Task', 'Writing Task', 'All Purpose Task', 'Graphic Organizer Task', and 'Lexile Exam Task'.
- Order Tasks:** A list of tasks with settings and delete icons. The tasks are: 'Reading Task Sharks' and 'Graphic Organizer: KWL Chart KWL Sharks about sharks. Please complete the KWL to help map out what you know and will learn'.

After reading a book on myON, students are encouraged to reflect by completing a book review. Reviews allow students to reflect on the text and write about the book in their own words, building their critical thinking skills, and in turn, pushing them towards autonomy. Through the book reviews, students can give criticism, suggestions, and feedback, as well as interact with their peers to gain greater understanding of a book's context.

## Differentiation, and Nonfiction Reading, and English Language Learners

### ***Differentiation***

Differentiated learning is a great way for teachers to meet students where they are in their learning journey. Implementing differentiated activities and tools in the classroom has shown to significantly increase engagement as well as achievement outcomes (McClenney et al., 2012; Shepherd & Alpert, 2015; Subban, 2006). Somewhat like Vygotsky's (1978) zone of proximal development, differentiation is based on the idea that students learn best when material is curated to their needs. There are two main variations: differentiation by (1) skill level/learning style, and (2) interests.

Differentiation is commonly implemented through rotation groups in the classroom. Teachers often group students to allow time to work with them on specific skills, interests, or areas of need.

**myON offers both differentiated content and a teacher grouping tool.** Teachers can create two types of groups in myON: book groups or student groups. For example, teachers can create book groups based on a specific topic, selecting various books about that topic at differing reading levels so the whole class can learn the same content but at individualized levels. For another book grouping, teachers can choose books by standard, again selecting texts at a range of difficulty levels so that students can learn the same skills while working within their own ZPD.

Teachers can also create student groups depending on common interests, specific books, project work, or other criteria specific to each group of students. Because not all students learn in the same way, some preferring visual aids while others may need hands-on experience, for example, myON also offers practice and lessons for multiple learning styles to help teachers ensure they are meeting all their students' needs. To pique students' interests, myON includes projects with various topic options so students can pick which best suits them.

### **Nonfiction**

According to many well-regarded theories of reading, background knowledge is critical to reading comprehension (Hoover & Gough, 1990; Scarborough, 2001). As people experience the world and learn new information, we develop schemas to help us connect dots and comprehend our environment. Smith et al. (2021) explained the impact of background knowledge on reading comprehension as that as we read new information, we use our prior knowledge to strengthen existing and create new schemas.

Students need this prior knowledge, which is also often gained through reading informational text, to become a more skilled reader (Kintsch, 1998). Students with little background knowledge often have a harder time creating inferences when reading text that lacks coherence (Cain et al., 2001). One of the benefits of informational text is that it is often written explicitly and contains external text such as headers and tables of contents that scaffold readers and help them find information and pick out main ideas.

As students get older, the texts they are asked to read become more informative, niche, and complex (science and history) or more nuanced, and less coherent, requiring inferential skills and critical thinking (language arts and humanities). In both cases, students rely on prior knowledge to process this text. Providing students with nonfiction text early on is important (1) to gather background knowledge on a variety of topics, (2) to develop reading comprehension skills such as gleaning knowledge from various text structures and informational formats, and (3) overall, to prepare students for what will be an exponentially growing need to utilize prior knowledge and existing schemas to understand complex text within the world around them.

According to Duke (2000), students are exposed to roughly only 3.6 minutes of nonfiction text per day. However, multiple researchers found students are more motivated and interested in



reading nonfiction text. McMath et al. (1998) suggested that nonfiction text stimulated more questions from students, as they were excited to apply new knowledge to their own experiences. Young and Moss (2006) found that primary-grade students chose nonfiction text over fiction and exhibited higher levels of reading comprehension when reading it. Likewise, Tyner and Kabourek (2020) found that kindergarten through grade 5, increased time in social studies lessons increased students' reading skills.

**myON includes nonfiction text via books at all reading levels and age-appropriate topical, daily news articles.** Each day students are given 5–10 digital articles on timely topics and current events (see figure 6). Students receive news articles written at a text difficulty level (lower, middle, or upper grade) determined by the ZPD range specified by their myON placement test. Teachers can ensure students are reading articles containing the same content but written at an individualized difficulty level.

**Figure 6. Example of news articles in myON**

The screenshot displays the myON News interface. At the top, it says "RENAISSANCE myON News" and "Today's Edition". The date is "Monday, Mar 14, 2022". There is a search bar and navigation arrows. The main content area is titled "Current" and features several article thumbnails:

- Back to the Island!**: A large Moai statue decorated with flowers and garlands.
- The Loongest Car in the World!**: A long white limousine with American flags.
- Two Years of the Pandemic**: A healthcare worker in a blue uniform and mask.
- 5 Stories for the Week Ahead**: A person with colorful face paint.
- A Squid Far from Home**: A hand holding a small squid.
- A new study says sharks can sleep — even if their eyes stay open!**: A text box with a scroll bar.

### **English language learners**

According to the NCES (2018), about 10% of US students are English language learners. Having access to books in students' native languages is important to (1) show students the school values and supports all cultures (Murphy, 2018), and (2) aid students in building skills in their native language in addition to English. Fostering culture and inclusion builds students' sense of self-efficacy and self-concept and creates positive reading and learning experiences. **myON includes books in several languages, including Spanish, British English, Chinese, Welsh, and Haitian Creole.**

## **Data and Progress**

Reading comprehension and motivation have a cyclical relationship by way of progress monitoring and formative feedback (Deci & Ryan, 1985; Guthrie et al., 1999). Immediate positive feedback is a great way to motivate students to continue reading. Research suggests that having immediate feedback facilitates reading comprehension more than delayed feedback (Samuels & Wu, 2003). And immediate feedback is associated with higher scores as students anticipate instantaneous results (Pekrun et al., 2014).

Similarly, allowing students to see their reading progress also motivates students to continue reading and pushing their progress line up. When students see and set their own goals and can also see the direct effect of their work on progress, they build self-efficacy around reading and become even more intrinsically motivated (Deci & Ryan, 1985).

**myON provides data to help teachers ensure that students are growing and becoming autonomous readers and to help motivate students.** Teachers can measure students' progress in two ways. First, many schools pair myON with Renaissance Accelerated Reader, which provides reading quizzes to test reading comprehension. The quizzes are written to ensure the questions are only answerable if students have read and understood the book. Many of the books in the myON core library have an accompanying Accelerated Reader quiz. When students finish reading books on myON, they are prompted to take an Accelerated Reader quiz within the myON interface. Quiz scores are reported back to the Accelerated Reader dashboard so teachers can use this data on myON to adapt lesson plans and spot students who may be struggling.

Students can see their reading scores, including how much time they have spent reading. The more work they put in, the more growth they will likely see on their next periodic placement test. If students have used myON for multiple school years, they can change the view to see their progress over time. This can be especially motivating for students who might not see as much growth in the short-term. When they see a general incline in across time, students can feel confident that the work they are doing is leading to progress.

Second, teachers have access to ample data to support lesson planning and decide where intervention is necessary via the teacher dashboard. They can see how long students are reading overall and specifically within their ZPD, which is important for two reasons. First, teachers can determine where students are spending the bulk of their time reading—Are they reading mostly

within or near their reading range? Or are they spending time reading books far above or below it that may be too difficult and frustrating or too easy and not keeping their interest? Second, teachers can see how long it takes individual students to read a book within their ZPD compared to students reading in a similar range.

Both pieces of data are important to ensure students have as many positive and pleasurable reading experiences as possible, which will then help to further their self-efficacy and motivation. Students may be inspired to read a book for many reasons, perhaps it looked or sounded interesting, or a friend has recommended it. If students select books far from their reading range, teachers should ensure, for example, that students have support when reading it, through read-alouds or reading with a peer to ensure they are successful with the text and have a positive experience. Similarly, if a student appears to be consistently taking more time to complete books than other students reading at the same level, they student may need to re-take the placement test to see if their reading range needs to shift.

## Conclusion

myON provides students with the utmost in reading accessibility. The program places a massive digital library right at students' fingertips. Anywhere they have access to the internet, students can search for and immediately begin reading books on various topics and genres spanning all reading levels. myON offers tools for all types of reading, including students who may be struggling, and adapts to students' skill levels and interests based on their reading, feedback from peers, and periodic assessment of their reading level. myON offers hopeful steps towards minimizing the Matthew Effect in reading and creating more autonomous readers. As reading achievement is one of the strongest predictors of long-term success (Kirsch et al., 2002), myON is a tool teachers and students can depend on to help pave a road to success for all students.



## References

- Alexander, K. L., Entwisle, D. R., & Olson, L. S. (2007). Lasting consequences of the summer learning gap. *American Sociological Review*, 72(2), 167–180. <https://doi.org/10.1177/000312240707200202>
- Allington, R. L., McGill-Franzen, A., Camilli, G., Williams, L., Graff, J., Zeig, J., ... & Nowak, R. (2010). Addressing summer reading setback among economically disadvantaged elementary students. *Reading Psychology*, 31(5), 411–427.
- Biancarosa, G., & Griffiths, G. G. (2012). Technology tools to support reading in the digital age. *The Future of Children*, 22(2), 139–160. <https://files.eric.ed.gov/fulltext/EJ996196.pdf>
- Bus, A. G., Van Ijzendoorn, M. H., & Pellegrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research*, 65(1), 1–21. <https://doi.org/10.3102%2F00346543065001001>
- Cain, K., Oakhill, J. V., Barnes, M. A., & Bryant, P. E. (2001). Comprehension skill, inference-making ability, and their relation to knowledge. *Memory & Cognition*, 29(6), 850–859. <https://link.springer.com/content/pdf/10.3758/BF03196414.pdf>
- Chang, A. C. S. (2009). Gains to L2 listeners from reading while listening vs. listening only in comprehending short stories. *System*, 37(4), 652–663.
- Chang, A. C. S., & Millett, S. (2015). Improving reading rates and comprehension through audio-assisted extensive reading for beginner learners. *System*, 52, 91–102.
- Copeland, M., & Liben, D. (2013). Quick and easy access to measures of text complexity using the Lexile Framework for Reading.
- Deci, E. L., & Ryan, R. M. (1985) Cognitive evaluation theory: Perceived causality and perceived competence. In *Intrinsic motivation and self-determination in human behavior: Perspectives in social psychology* (pp. 43–85). Springer. [https://doi.org/10.1007/978-1-4899-2271-7\\_3](https://doi.org/10.1007/978-1-4899-2271-7_3)
- Disseldorp, B., & Chambers, D. (2002). *Selecting the right environment for students in a changing teaching environment: A case study*. Paper presented at the meeting of the Australian Society for Educational Technology International, Melbourne, Australia.
- Duke, N. K. (2000). 3.6 Minutes per day: The scarcity of informational texts in first grade. *Reading Research Quarterly*, 35(2), 202–224.
- Guay, F., Boggiano, A. K., & Vallerand, R. J. (2001). Autonomy support, intrinsic motivation, and perceived competence: Conceptual and empirical linkages. *Personality and Social Psychology Bulletin*, 27(6), 643–650.
- Guthrie, J. T., Hoa, L. W., Wigfield, A., Tonks, S. M., & Perencevich, K. C. (2005). From spark to fire: Can situational reading interest lead to long-term reading motivation? *Literacy Research and Instruction*, 45(2), 91–117.
- Guthrie, J. T., Wigfield, A., Metsala, J. L., & Cox, K. E. (1999). Motivational and cognitive predictors of text comprehension and reading amount. *Scientific Studies of Reading*, 3(3), 231–256.
- Guthrie, J. T., Wigfield, A. (2017). Literacy engagement and motivation: Rationale, research, teaching, and assessment. In Lapp, D., Fisher, D. (Eds.), *Handbook of research on teaching the English language arts* (pp. 57–84). Routledge. <https://doi.org/10.4324/9781315650555-3>

- Hale, A. D., Skinner, C. H., Winn, B. D., Oliver, R., Allin, J. D., & Molloy, C. C. (2005). An investigation of listening and listening-while-reading accommodations on reading comprehension levels and rates in students with emotional disorders. *Psychology in the Schools, 42*(1), 39–51.
- Halle, T. G., Kurtz-Costes, B., & Mahoney, J. L. (1997). Family influences on school achievement in low-income, African American children. *Journal of Educational Psychology, 89*(3), 527–537.
- Hawkins, R. O., Marsicano, R., Schmitt, A. J., McCallum, E., & Musti-Rao, S. (2015). Comparing the efficiency of repeated reading and listening-while-reading to improve fluency and comprehension. *Education and Treatment of Children, 49*–70.
- Hayes, D. P., & Grether, J. (1969). *The school year and vacations: When do students learn?* Academic Press.
- Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing, 2*(2), 127–160.
- Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. Cambridge University Press.
- Kirsch, I., de Jong, J., Lafontaine, D., McQueen, J., Mendelovits, J., & Monseur, C. (2002). *Reading for change: Performance and engagement across countries*. Organization for Economic Co-operation and Development (OECD).
- Leong, C. K. (1992). Enhancing reading comprehension with text-to-speech (DECTalk) computer system. *Reading and Writing, 4*(2), 205–217.
- McClenney, K., Marti, C. N., & Adkins, C. (2012). *Student engagement and student outcomes: Key findings from CCSSE validation research*. Community College Survey of Student Engagement. <https://files.eric.ed.gov/fulltext/ED529076.pdf>
- McConkie, G.W., & Zola, D. (1985). *Computer aided reading: An environment for developmental research*. Paper presented at the meeting of the Society for Research in Child Development, Toronto.
- McMath, J. S., King, M. A., & Smith, W. E. (1998). Young children, questions, and nonfiction books. *Early Childhood Education Journal, 26*(1), 19–27.
- Merton, R. K. (1986). The Matthew effect in science: The reward and communication systems of science are considered. *Science, 159*(3810), 56–63.
- Mol, S. E., & Bus, A. G. (2011). To read or not to read: A meta-analysis of print exposure from infancy to early adulthood. *Psychological Bulletin, 137*(2), 267–296. <https://doi.org/10.1037/a0021890>
- Morgan, P. L., & Fuchs, D. (2007). Is there a bidirectional relationship between children's reading skills and reading motivation? *Exceptional Children, 73*(2), 165–183. <https://doi.org/10.1177/001440290707300203>
- Murphy, P. H. (2018). School libraries addressing the needs of ELL students: Enhancing language acquisition, confidence, and cultural fluency in ELL students by developing a targeted collection and enriching your makerspace. *Knowledge Quest, 46*(4), 60–65. <https://files.eric.ed.gov/fulltext/EJ1171688.pdf>
- National Center for Education Statistics. (2020). *Percentage distribution of children ages 3 to 18, by whether they have home internet access, whether they have access through computer or only smartphone, and selected child and family characteristics: 2016 and 2019*. Institute of Education Sciences, US Department of Education. [https://nces.ed.gov/programs/digest/d20/tables/dt20\\_702.12.asp](https://nces.ed.gov/programs/digest/d20/tables/dt20_702.12.asp)
- National Center for Education Statistics. (2018). *English Language Learners in public schools*. Institute of Education Sciences, US Department of Education. <https://nces.ed.gov/programs/coe/indicator/cgf>

- Neuman, S. B., & Celano, D. (2001). Access to print in low-income and middle-income communities: An ecological study of four neighborhoods. *Reading Research Quarterly*, 36(1), 8–26.
- Pekrun, R., Cusack, A., Murayama, K., Elliot, A. J., & Thomas, K. (2014). The power of anticipated feedback: Effects on students' achievement goals and achievement emotions. *Learning and Instruction*, 29, 115–124.
- Perfetti, C. A., Landi, N., & Oakhill, J. (2005). The acquisition of reading comprehension skill. In M. J. Snowling & C. Hulme (Eds.), *The science of reading: A handbook* (pp. 227–247). Blackwell Publishing.  
<https://doi.org/10.1002/9780470757642.ch13>
- Porter-O'Donnell, C. (2004). Beyond the yellow highlighter: Teaching annotation skills to improve reading comprehension. *English Journal*, 93(5), 82–89.
- Reinking, D., & Rickman, S. S. (1990). The effects of computer-mediated texts on the vocabulary learning and comprehension of intermediate-grade readers. *Journal of Reading Behavior*, 22(4), 395–411.  
<https://doi.org/10.1080/10862969009547720>
- Robbins, C., & Ehri, L. C. (1994). Reading storybooks to kindergartners helps them learn new vocabulary words. *Journal of Educational Psychology*, 86(1), 54–64. <https://doi.org/10.1037/0022-0663.86.1.54>
- Rogayan, D. V. Jr., Padrique, M. J., & Costales, J. (2021). Can computer-assisted instruction improve students' motivation and academic performance in social studies? *Journal of Digital Educational Technology*, 1(1), ep2105. <https://doi.org/10.21601/jdet/11334>
- Samuels, S. J., & Wu, Y. (2003). The effects of immediate feedback on reading achievement. *Unpublished manuscript, University of Minnesota, Minneapolis*.
- Scarborough, H. (2001). Connecting early language and literacy to later reading disabilities: Evidence, theory and practice. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 97–110). Guilford.
- Shepherd, C. M., & Alpert, M. (2015). Using Technology to Provide Differentiated Instruction for Deaf Learners. *Journal of Instructional Pedagogies*, 16. <https://files.eric.ed.gov/fulltext/EJ1069390.pdf>
- Smith, R., Snow, P., Serry, T., & Hammond, L. (2021). The role of background knowledge in reading comprehension: A critical review. *Reading Psychology*, 42(3), 214–240. <https://doi.org/10.1080/02702711.2021.1888348>
- Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 7(7), 935–947
- Taboada Barber, A., Tonks, S. M., Wigfield, A., Guthrie, J. T. (2009). Effects of motivational and cognitive variables on reading comprehension. *Reading and Writing*, 22, 85–106. <https://doi.org/10.1007/s11145-008-9133-y>
- Tseng, S. S., Yeh, H. C., & Yang, S. H. (2015). Promoting different reading comprehension levels through online annotations. *Computer Assisted Language Learning*, 28(1), 41–57.
- Tyner, A., & Kabourek, S. (2020, September). *Social studies instruction and reading comprehension: Evidence from the Early Childhood Longitudinal Study*. Thomas B. Fordham Institute. <https://files.eric.ed.gov/fulltext/ED609934.pdf>
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Weisleder, A., & Fernald, A. (2013). Talking to children matters: Early language experience strengthens processing and builds vocabulary. *Psychological Science*, 24(11), 2143–2152. <https://doi.org/10.1177/0956797613488145>

Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breadth of their reading. *Journal of Educational Psychology, 89*(3), 420–432.

Wood, S. G., Moxley, J. H., Tighe, E. L., & Wagner, R. K. (2018). Does use of text-to-speech and related read-aloud tools improve reading comprehension for students with reading disabilities? A meta-analysis. *Journal of Learning Disabilities, 51*(1), 73–84.

Young, T. A., & Moss, B. (2006). Nonfiction in the classroom library: A literacy necessity. *Childhood Education, 82*(4), 207–212.