

**Enhancing Student Reading Motivation and Comprehension in School-based  
Agricultural Education**

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### **Introduction**

Strong literacy skills have long been deemed essential for students' to be considered college and career ready (Park et al., 2017). Research has shown that communication skills, specifically reading comprehension skills, are considered important to employers regardless of the career field one enters (Burrus et al., 2013); however, according to the National Center for Educational Statistics (2020), only 37% of twelfth-grade students perform at or above a proficient level on academic reading assessments. This poses a substantial problem for secondary career and technical educators as they strive to prepare students for success beyond high school, regardless if they choose a college or career path.

School-based agricultural education (SBAE) programs are known for integrating core academic content (math, science, reading, etc.) into their existing agricultural curriculum as it provides students with a relevant context for learning such concepts (Phipps et al., 2008). While SBAE teachers often see value in teaching many of these core academic concepts, such as literacy strategies, they often choose to incorporate more traditional hands-on learning experiences with their students in lieu of integrating more academic content (Park & Osborne, 2006). McKim et al. (2016) tell us that there is a disconnect between the value SBAE teachers put on integrating these tasks and their perceived competence level to perform them. If only there was an easy way SBAE teachers could incorporate more literacy strategies into their courses in a fun, engaging way. Wait, there is! Let us introduce the reading strategy wheel!

### **How it Works**

The Reading Strategy Wheel allows teachers to implement a variety of unique literacy strategies to help students read and comprehend in SBAE programs. This idea can be incorporated in any agriculture course that uses textbooks, readings, or any other type of text documents. Here are a few examples: agriscience experiment laboratory procedures, current event articles, small sections or paragraphs within a textbook, or procedures in a shop manual.

In order to get started, a teacher will need a prize wheel (which can be obtained from a variety of sources) and a permanent marker. Alternatively, a teacher could implement in a virtual format using online choice randomizer applications. Next, the teacher writes their preferred reading strategies on the prize wheel. The original wheel used incorporated 24 different strategies (other wheels can incorporate 10-40 strategies depending on their design) which can be used with middle school and high school students.

In the classroom, a teacher can have students spin the wheel in order to select the reading strategy to be used that day. Teachers are human and we naturally prefer to stick with strategies that either we learn best with or we are most familiar with; however, using those same strategies over and over does not allow us to reach every student. The Reading Strategy Wheel helps teachers move outside our comfort zone in order to provide diverse reading literacy instruction to students.

## **Results to Date & Implications**

Since implementation of the Reading Strategy Wheel two years ago, anecdotal evidence has shown greater student interaction with reading passages in the classroom and comprehension of academic and technical concepts. Additionally, students now know what to expect when starting each new classroom activity. As a result, classroom management has improved and teacher self-efficacy has increased.

To this date, there are also at least 50 teachers across the country who are implementing our Reading Strategy Wheel into their classrooms. This group of teachers were recently surveyed to help measure the impact of this idea on their programs. Of these 50 teachers, we had a 30% response rate to the survey. Demographically, 80% of respondents indicated that they are beginning or mid-career teachers utilizing the Reading Strategy Wheel. Over 90% (93.3%) of respondents use it at least once a week, while 20% indicate that they use it every day. Teachers indicate that students are more engaged since implementing the wheel, and have shared that they have increased the number of strategies used in their classrooms since they started using it.

## **Future Plans & Advice to Others**

Our primary objective was to help teachers incorporate literacy strategies into their SBAE programs. If SBAE teachers are unfamiliar with reading strategies it is suggested they participate in relevant professional development opportunities on this topic. Additionally, a potential list of reading strategies that teachers can implement is provided in the resources below. Furthermore, in these current, unprecedented times a reading strategy wheel can be easily modified to work in a virtual or blended classroom using randomizing websites such as PickerWheel.com. If a teacher has a short reading that they would like students to read during a synchronous virtual discussion, they can bring up this online wheel while sharing their screen in order to select a reading strategy for that day's lesson.

## **Costs & Resources Needed**

While this idea of the Reading Strategy Wheel was traditionally meant to be used with a physical prize wheel, there are some ways to adapt this idea in order for any SBAE teacher to use. The first option is to purchase a pre-made/customized wheel from Owl Help You Enterprises, which retails for \$65 plus shipping. This is the original Reading Strategy Wheel that has been recreated as a part of a student's Supervised Agriculture Experience project. A second option is to create your own Reading Strategy Wheel. Several retailers (including Amazon) sell prize wheels and markers. These options range in costs from \$40-80 including shipping. Finally, a no-cost, virtual option for those wanting to test out the Reading Strategy Wheel before investing in a physical one can be implemented using PickerWheel.com.

For each of the options above, teachers will need a selection of reading strategies in order to include with their wheels. We recognize that teachers may or may not already have a list of reading and literacy strategies in order to implement. Due to this, we have compiled a list of potential strategies (<https://bit.ly/2WshLvU>) that could be used.

## References

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