

TECHNOLOGY BASED INTERVENTIONS IMPACT ON PHONEMIC AWARENESS  
GROWTH

By,

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A capstone project submitted in partial fulfillment of the requirements for the degree of  
Master of Arts in Teaching.

Hamline University

Saint Paul, Minnesota

December 2019

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## Project Summary

The project created sought to answer the question, *What impact do technology based interventions have on a student's phonemic awareness growth?* The author created an online literacy checklist for educators who work with kindergarten students. The goal of the checklist is to help educators discern if a technology based intervention has the elements that would help to promote kindergarten phonemic awareness growth. Snider (1997) stated that phonemic awareness is the necessary bridge that connects the spoken language that kids are exposed to from birth to understanding the “squiggles” on a page when it is time for them to read. In the beginning of kindergarten, it is important for students to make these connections as we push our students to be able to read books by the end of the school year.

Another author, Shanahan (2005), defined phonemic awareness as the “ability to hear and manipulate the individual sounds within words,” which is an important skill for students to have in order to progress from a non-reader to a reader (p.6). The online literacy checklist included many phonemic awareness items , that the author found to be necessary to be an effective supplemental teaching tool for their students. The checklist included items such as letter names and sounds, beginning sound isolation, ending sound isolation, segmenting, blending, and listening and speaking. The phonemic awareness skills were chosen because this is something that the creator's students are working towards at their school site. These are the skills that are being focused on as they start to guide their students into reading more in the upcoming months. The author found these items crucial for a supplemental tool as it would support the classroom instruction and also foster student growth.

The developmental tasks were chosen to address the issue of a short attention span in the kindergarten students. The developmental tasks were quick activities with creative animations and incentives. These activities had built in accountability and high chances for success while providing feedback when necessary. Quick activities and creative animations help solve the problem of short attention spans and also aim to encourage student engagement. Incentives are a great way to keep students excited for the activities and gives them something to look forward while keeping them engaged in completing the tasks in the programs. Built in accountability helps to keep the students honest, as they tend to have to repeat levels or tasks if they do not meet the goal for each level or task. With that in mind, providing feedback helps to keep the students accountable because it reminds them what they are looking to accomplish. Lastly, high chances of success help the students aim to continue with the engagement and excitement as they progress through tasks.

We are now in a digital age where technology is being developed and updated at an alarming rate. Many authors found that the use of technology in the classroom can provide a fun way for literacy skills to be targeted and also provide students the opportunity to be in control of their learning (Fink, 2018; Harmon, 2012). These notions also led the author to create the online literacy checklist as they wanted to help their students navigate through our current digital age and provide educators with a way to make sure the web sites and applications their students are using are useful in supporting their phonemic awareness growth.

# Online\* Tool Checklist

\*Literacy

<b>Phonemic Awareness</b>	<b>Yes/No</b>	<b>Yes/No</b>	<b>Developmental Tasks</b>
Letter Names			Quick Activities
Letter Sounds			Creative Animations
Beginning Sound Isolation			Incentives
Ending Sound Isolation			Built in Accountability
Segmenting			High Chances for Success
Blending			Provides Feedback
Listening			
Speaking			

# Online\* Tool Checklist

\*HeadSprout Example (Based on playing for 2 weeks of school, 10 school days)

Phonemic Awareness	Yes/No	Yes/No	Developmental Tasks
Letter Names	Yes	Yes	Quick Activities
Letter Sounds	Yes	Yes	Creative Animations
Beginning Sound Isolation		Yes	Incentives
Ending Sound Isolation			Built in Accountability
Segmenting		Yes	High Chances for Success
Blending		Yes	Provides Feedback
Listening	Yes		
Speaking	Yes		

## Pros:

1. Placement test: assesses the students on prior knowledge, thus placing them at the spot that will best support their learning growth.
2. Provides immediate feedback; if a student makes a mistake, it reminds them of what the expectation is.
3. There are quick tasks and games that keep the student focused.
4. Animations provided in between tasks.
5. Teacher is in charge of turning on incentives for students.

## Cons:

1. Since teacher is in charge of incentives, kids may get impatient with waiting to create avatars and rockets.
2. Hard to determine if all of the components are there, as they may come later in the game, The creator did not explore the game long enough to find these items.

# Online\* Tool Checklist

\*Teach Your Monster to Read Example (Based on playing for 2 weeks of school, 10 school days)

Phonemic Awareness	Yes/No	Yes/No	Developmental Tasks
Letter Names	No	Yes	Quick Activities
Letter Sounds	Yes	Yes	Creative Animations
Beginning Sound Isolation		Yes (Immediate)	Incentives
Ending Sound Isolation			Built in Accountability
Segmenting		Yes (repetitive games)	High Chances for Success
Blending			Provides Feedback
Listening	Yes		
Speaking			

## Pros

1. Students can work towards an immediate goal; pick a prize and win the prize after completing set tasks.

## Cons

1. No instructions for how to play the games are given.
2. Does not repeat instructions for tasks.
3. Does not connect the letter name with the letter sound.
4. Asks the students to say certain sound, but does not give them time to actually repeat it.
5. Game was created in the United Kingdom, and people speaking have an accent, may confuse the students about how to pronounce sounds in America, as it is slightly different.
6. Randomly introduces sight words; no instructions given on what the sight word is or why it has popped up.

## References

- Fink, M. A. (2018). *Effective iPad integration in the kindergarten literacy curriculum through creation-based literacy tasks: An action research study* (Ed.D.). Available from ProQuest Dissertations & Theses Global. (2166826306). Retrieved from <http://ezproxy.hamline.edu:2048/login?url=https://search.proquest.com/docview/2166826306?accountid=28109>
- Harmon, J. (2012). Unlock literacy with iPads. *Learning and Leading with Technology*, 39, 30-31.
- Shanahan, T., & North Central Regional, Educational Lab. (2005). The national reading panel report. practical advice for teachers. *Learning Point Associates / North Central Regional Educational Laboratory (NCREL)*, Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED489535&site=ehost-live>
- Snider, V. E. (1997). The relationship between phonemic awareness and later reading achievement. *Journal of Educational Research*, 90(4), 203-11. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ546698&site=ehost-live>