



## A Gamified Approach to Beginning Reading and STEAM

A Paper Presented and Published  
e-Learning World Conference  
Association for the Advancement of Computing in Education  
October 2018

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## A GAMIFIED APPROACH TO BEGINNING READING AND STEAM

This paper focuses on the iKnow School + Home Adventure and the planning, implementation and astonishing results of a two-year pilot program completed in June 2018 in an inner-city elementary school. iKnow School + Home Adventure is designed to enable children who are English language learners to build a strong foundation as emergent readers and beginning readers. Its story-driven, blended approach to early literacy and Science, Technology, Engineering, Arts and Math (STEAM) fosters an interactive experiential learning opportunity for students to learn English as well as learning to read (Guccione, 2011) . Results indicated that students tested above 97% mastery in Letter Name Fluency and Letter Sound Fluency upon completion of Year Two of the Pilot Program.

The program can be implemented in several ways because iKnow was designed with the belief that no two students, families, classrooms, schools, districts and communities are exactly the same. Both the school and at-home models have multi-level accessibility to students at high risk of failure due to environmental barriers – those early learners who are also English language learners, high-need students who live in poverty and those learners who live in underperforming, inner city school areas.

We know that early learners, and particularly those learners who are struggling, need to be highly engaged in order to successfully complete learning levels and progress to the next phase of learning. iKnow is based on proven research methods and core standards, using technology effectively and efficiently with a cross-curricular, multi-modality methodology (Aguilar, 2016) .

**5 Essential Elements of Reading**  
**iKnow ABC Adventure App Example**

**Alphabet Principal**  
Words are composed of letters that represent sounds.

**Phonemic Awareness**  
The ability to hear and manipulate the sounds in spoken words.

**Vocabulary**  
Learning, as a language based activity, is fundamentally and profoundly dependent on vocabulary knowledge.

**Fluency**  
Fluency is the ability to read a text accurately, quickly, and with expression.

**Comprehension**  
The essence of reading

During the 2018-2019 school year iKnow School + Home adventure partnered with Public Education Foundation (PEF) to improve literacy and family engagement. Propelled by a belief that improving our public schools was too big a task for a school district to undertake alone, PEF was established in 1991 as an independent 501(c)(3) non-profit Nevada corporation. Their first order of business was to define possibilities and offer solutions to the challenges of educating a growing and diverse Southern Nevada population, which are representative or national issues. The Foundation continues to be guided by a spirit of innovation and a willingness to take risks in an unending pursuit of bold new thinking and innovative approaches to public education.

Using technology in the classroom or in the home environment for learning is not new, but the approach that iKnow uses to integrate the emerging learning skills with the use of technology is. Technology Literacy is systematically taught within the “adventure”. Students first learn to use the technology (iPad or tablet) in a fun and interactive way – by taking photos and videos of their peers at the various learning stations and creating a digital diary of their progress– the technology basic skills begins the learning adventure. Using additional and complementary technology like Google Meet enhances the student’s learning experience to bring the world into the classroom by ‘beaming in’ experts from around the world to teach the students from a new perspective using their expertise to interact directly with the students. The technology empowers teachers and provides flexibility to use iKnow exactly how she wants to use it with her students for maximum results. iKnow is a custom fit for almost any and all classroom.

### Pilot Program and Assessment

The iKnow School + Home Adventure approach prioritizes high-need students and school climate has proven results with a pilot test of the iKnow School Adventure conducted in partnership with a high-needs urban elementary school in a large metropolitan school district from fall 2016 to through spring 2018. In the Year One 2016-2017 school year, five classrooms participated in the pilot program where four of the classrooms used 10 iPads (2 students per iPad) and one classroom used computers only. In the Year Two 2017-2018 school year, one classroom used 25 iPads (one student per iPad).

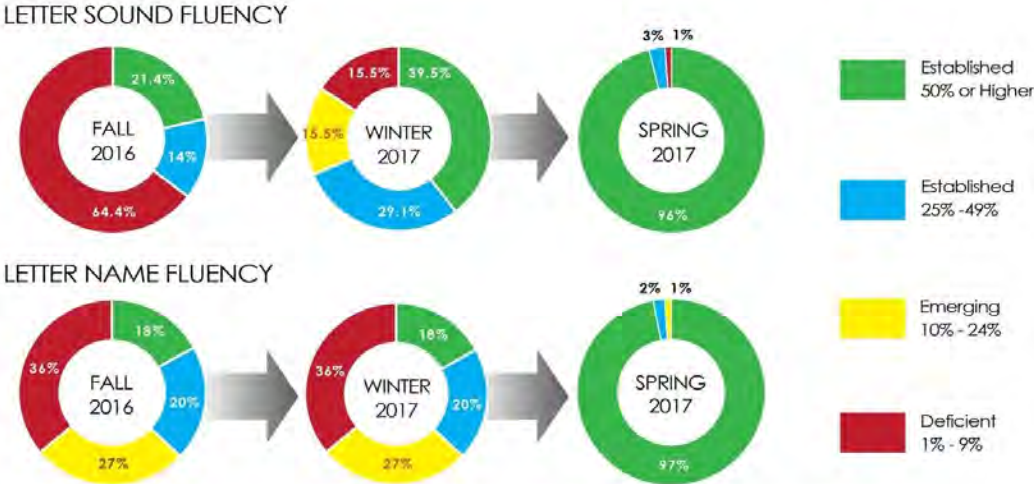
Technology was introduced in each of these classrooms at the outset of the pilot program where teachers used smartboards and iPads that were provided for the emerging learners to use in conjunction with the iKnow School + Home Adventure modules. Each day would begin with the large group activity and then proceed to move through the small group and self-guided activities of the iKnow School + Home Adventure. The emerging learners were exposed to the many facets of the iKnow School + Home Adventure program including whole group participation, using the technology to create digital diaries of their progress and the interaction with experts from around the world. To assess the progress of the students, the high-needs urban elementary school in a large metropolitan school district used the Aimsweb standardized tests program. Aimsweb measures overall performance of key foundational skills, that is to provide accurate predictions of achievement in literacy. The results from the Aimsweb standardized tests for each classroom in letter sound indicate that iKnow School Adventure changes learning outcomes for all students. The results can be viewed below.

### Test Results Pilot Program in Las Vegas, Nevada

iKnow was first implemented as a pilot program in a high-needs urban elementary school in a large metropolitan school district during the 2016-2017 school year as seen in Test Results below. The second year of the pilot program is currently being implemented at the same high-needs urban elementary school in a large metropolitan school district during the current 2017-2018 school.

**Standardized Test Results Fall 2016 - June 2018**

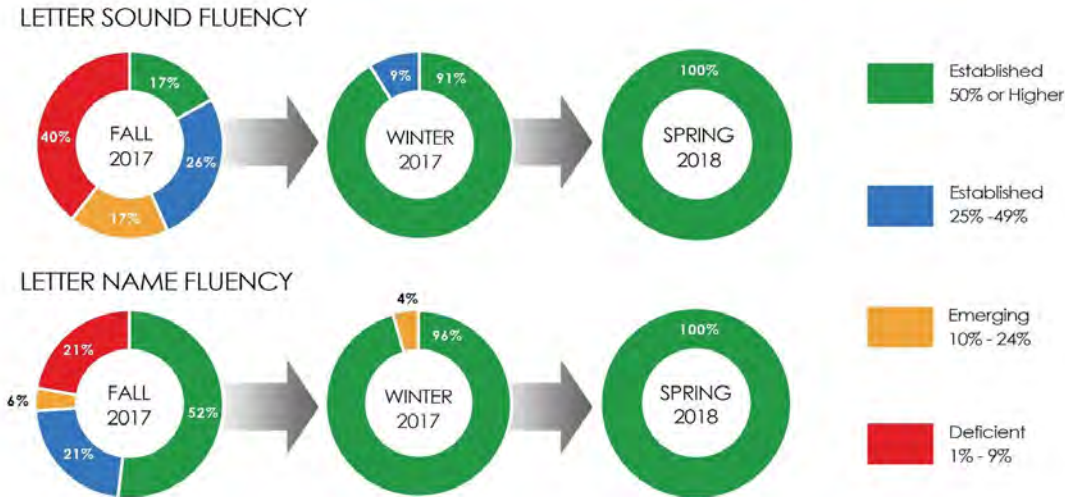
Test Results of the high-needs urban elementary school in a large metropolitan school district 2016-2017 School Year:



Actual Aimsweb and classroom testing: Letter Sound Fluency and Letter Name Fluency test results for 5 Kindergarten classes at a high-needs urban elementary school in a large metropolitan school district.

\*89% English Language Learner (ELL) student population

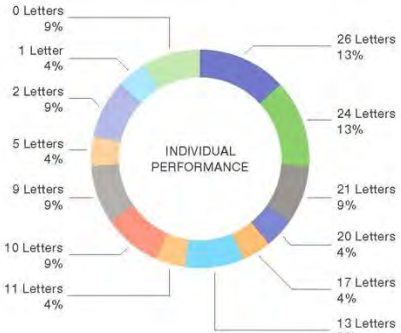
Test Results of the high-needs urban elementary school in a large metropolitan school district 2017-2018 School Year:



Actual Aimsweb and classroom testing: Letter Sound Fluency and Letter Name Fluency test results for 1 Kindergarten class at C.C. Ronnow Elementary School\* in Las Vegas NV.

\* 89% English Language Learner (ELL) student population

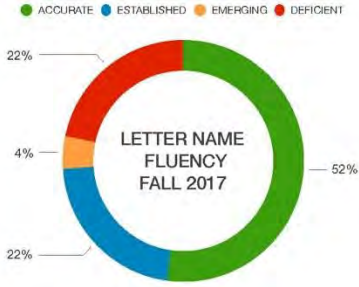
LETTER NAME FLUENCY  
FALL 2017



CORRECT	# OF STUDENTS
26 Letters	3
25 Letters	0
24 Letters	3
23 Letters	0
22 Letters	0
21 Letters	2
20 Letters	1
19 Letters	0
18 Letters	0
17 Letters	1
16 Letters	0
15 Letters	0
14 Letters	0
13 Letters	2
12 Letters	0
11 Letters	1
10 Letters	2
9 Letters	2
8 Letters	0
Letters	0
6 Letters	0
5 Letters	1
4 Letters	0
3 Letters	0
2 Letters	2
1 Letter	1
0 Letters	2
	23

SCORE	%
26 OF 26	100%
25 OF 26	96%
24 OF 26	92%
23 OF 26	89%
22 OF 26	85%
21 OF 26	81%
20 OF 26	77%
19 OF 26	73%
18 OF 26	69%
17 OF 26	65%
16 OF 26	61%
15 OF 26	58%
14 OF 26	54%
13 OF 26	50%
12 OF 26	46%
11 OF 26	42%
10 OF 26	38%
9 OF 26	35%
8 OF 26	31%
7 OF 26	27%
6 OF 26	23%
5 OF 26	19%
4 OF 26	15%
3 OF 26	11%
2 OF 26	8%
1 OF 26	4%
0 OF 26	0%

RATING	# OF STUDENTS
ACCURATE	12
ESTABLISHED	6
EMERGING	11
DEFICIENT	5
	23



LETTER NAME FLUENCY  
SPRING 2018



CORRECT	# OF STUDENTS
26 Letters	22
25 Letters	0
24 Letters	1
23 Letters	0
22 Letters	0
21 Letters	0
20 Letters	0
19 Letters	0
18 Letters	0
17 Letters	0
16 Letters	0
15 Letters	0
14 Letters	0
13 Letters	0
12 Letters	0
11 Letters	0
10 Letters	0
9 Letters	0
8 Letters	0
7 Letters	0
6 Letters	0
5 Letters	0
4 Letters	0
3 Letters	0
2 Letters	0
1 Letter	0
0 Letters	0
	23

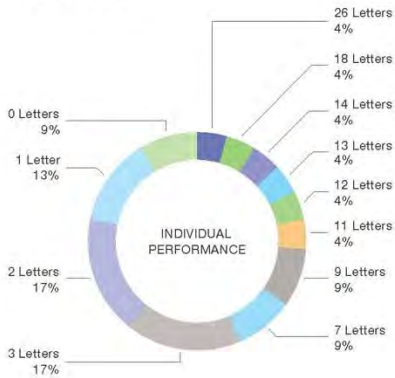
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7 OF 26	27%
6 OF 26	23%
5 OF 26	19%
4 OF 26	15%
3 OF 26	11%
2 OF 26	8%
1 OF 26	4%
0 OF 26	0%

RATING	# OF STUDENTS
ACCURATE	23
ESTABLISHED	0
EMERGING	0
DEFICIENT	0
	23





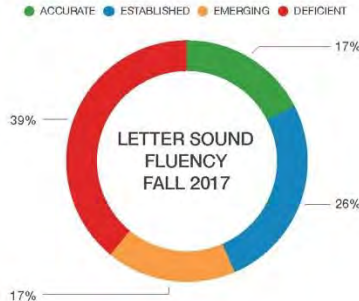
**LETTER SOUND FLUENCY  
FALL 2017**



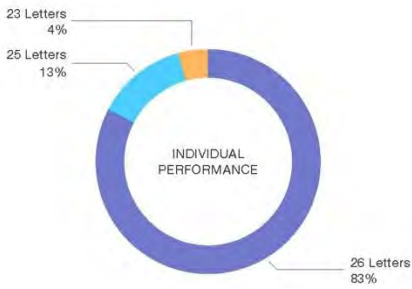
CORRECT	# OF STUDENTS
26 Letters	1
25 Letters	0
24 Letters	0
23 Letters	0
22 Letters	0
21 Letters	0
20 Letters	0
19 Letters	0
18 Letters	1
17 Letters	0
16 Letters	0
15 Letters	0
14 Letters	1
13 Letters	1
12 Letters	1
11 Letters	1
10 Letters	0
9 Letters	2
8 Letters	0
7 Letters	2
6 Letters	0
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8 OF 26	31%
7 OF 26	27%
6 OF 26	23%
5 OF 26	19%
4 OF 26	15%
3 OF 26	11%
2 OF 26	8%
1 OF 26	4%
0 OF 26	0%

RATING	# OF STUDENTS
ACCURATE	4
ESTABLISHED	6
EMERGING	1
DEFICIENT	9
	23



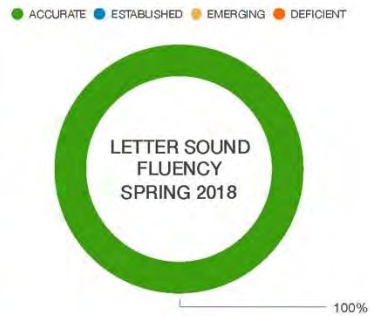
**LETTER SOUND FLUENCY  
SPRING 2018**



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12 Letters	0
11 Letters	0
10 Letters	0
9 Letters	0
8 Letters	0
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6 Letters	0
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0 OF 26	0%

RATING	# OF STUDENTS
ACCURATE	23
ESTABLISHED	0
EMERGING	0
DEFICIENT	0
	23



Essential Skills Classroom Standardized Test: Letter Sound Fluency and Letter Name Fluency test results from one Kindergarten classroom high-needs urban elementary school in a large metropolitan school district.

## iKnow School + Home Adventure

Our modern method approach to education embodies the notion that when you teach a child a fact - he may remember it, and when you show a child an example - she can describe it, but when you tell young children a captivating story, set to music, the story and songs become a part of who they are, shape who they become, and stay with them for life.

This unforgettable story, “The Legend,” told in rhyme, provides a purpose for learning in the iKnow Series and throughout all of the iKnow products. The story acts as a disguise for Bloom’s Taxonomy of cognitive development, proven research-based methods, core standards and evidence-based learning. It’s the methodology behind the technology.

iKnow School Adventure is designed to enhance and deepen the learning experience for all students, but in particular for those students who are high-needs learners (Gellert & Elbro, 2017). The program allows the students to work collaboratively in large groups as well as have directed small group learning experiences. This approach helps the high-need learners to build upon their beginning reading and English language acquisition through conversation and teamwork. iKnow School Adventure builds on Bloom's Taxonomy to build higher cognitive development in emerging learners by providing experiences and activities that walk students through each level of cognitive development Full Life Cycle of Learning and the 5 Levels of Learning.

The iKnow School Adventure is an explicit systematic approach that uses a scaffolding model to allow students to follow the same routine each day. The iKnow School Adventure program is structured into five levels of adventure for the emerging learners with one story thread throughout each module. The consistent story thread provides the purpose for learning and guides the students through each level. For high-need students, repetition and impact are two of the most important elements of learning. The iKnow School Adventure approach provides emerging learners with opportunities for repetition of learning outcomes in order to achieve full comprehension of the learning concepts presented in each iKnow School Adventure module.

iKnow’s clearly defined milestones are designed to achieve the objectives of the proposed project including the measuring of student’s academic performance and growth/rate of improvement in the areas of alphabets (word decoding and recognition), phonemic awareness (or phoneme awareness where sounds merge to form words), phonological awareness (like syllables and rhyming words), letter identification (lower and upper case), print awareness (like mutual characteristics of books), phonics (blending letters/letter combinations into syllables and words), fluency (letters, words and connected text), vocabulary knowledge (including STEAM vocabulary), and comprehension (understanding what is read/heard, generally as well as with STEAM content).

The iKnow School + Home Adventure program uses the integration of technology to promote networking and the sharing of knowledge throughout the school and parent communities to help to change and improve upon the school climate. iKnow School + Home Adventure is family-focused and assists in community outreach. Teachers, students, and parents all learn the basic skills to utilize the technology effectively and efficiently (Kaumbulu, 2011) . These skills will help to improve learning outcomes, communication between the school and parent communities.

Professional development within the school community is encouraged and assisted through iKnow School + Home Adventure. As the school climate begins to change to a more collaborative environment for teaching professionals it becomes a part of the fabric of the school to maintain a positive school climate for teachers, parents and students. All have a vested interest in the emerging learner's path to success, and collaboration is the key to this success.

Parents within the school community were also provided with tools and access to the iKnow School + Home Adventure to teach their children at home about reading readiness, STEAM concepts, and how to maximize the iKnow School + Home Adventure home version (that works in conjunction with the School Adventure program) for their high-need, emerging learners. When the parent community is involved, the school climate improves for all learners, but particularly for those high-need students.

For students, iKnow School + Home Adventure implements large group activities in the classroom setting to create a dynamic classroom climate that ultimately improves upon the overall school climate. High-need students, from a very early age, may experience exclusion and stigmatization within their school environment. The iKnow School + Home Adventure program eliminates that exclusion with the large group activities and the integration of self-paced learning. When kindergarten students begin their journey with a positive experience they will be a successful citizen of the school (Doyle & Bramwell, 2006). When high-need students are given that same opportunity and are able to participate in a fully integrated classroom setting they have the ability to learn on a much deeper, more significant level. This allows high-need students to become a part of the school fabric and thus improves the overall school climate.

As high-need students progress from kindergarten through to 3<sup>rd</sup> grade the school climate will continue on the positive upward trajectory (Carta et al., 2014) . The iKnow School + Home Adventure will continue its efforts and develop a program that runs from PK through fourth grade to support positives changes in the school climate. With iKnow School + Home Adventure's innovative approach the school climate is interwoven through the high-need student achievements, the use of technology and the continued participation of both teachers and parents as well as the community at large.

### iKnow Daily Class Session Example 1

This Example 1 uses the The Individualized Digital Instruction and Project-Based Learning Model. See Daily Lesson Examples Infographic below. iKnow begins in a Large



Group where the teacher reads to the students to initiate the engagement of the students and focus their attention to a new day of learning. Animal-inspired yoga poses are integrated to help students focus their minds as well as prepare them for learning. This allows the students to viscerally experience the letters and focus deeper on their task at hand and helps them center and prepare to learn. The sounds and the names of the animals help to form the basis of language acquisition for emerging learners. This activity also gets them thinking, listening, seeing and feeling the animals. Once the large group activity has been completed, the class breaks into individual, self-paced digital adventure and/or small groups and move through the classroom learning and discovery centers. Each teacher has the power to utilize iKnow how it works best for her students and technology availability. Beginning reading and Technology Literacy for both students, parents and teachers are woven seamlessly into the program.



Example 1, the students are in Level 2: Rain Forest in search of five animals and their secret letters. Today they find butterfly and her secret letter sound /b/. The self-paced, student-guided, limited screen-time, interactive digital session plus a Language Building Activity works great with a one-to-one iPad to student ratio or with only 4 or 5 iPads in Stations / Centers. These activities can be broken up into two days or used during Reading block and Science or Flex time. The teacher has the freedom to select specific activities that relate to each level. They are easily

accessible and always available, 24/7 instant on demand access through their teacher accounts. The tablets are then used by the student to record their progress and to take pictures of their accomplishment.

Teachers get anytime, anywhere on-demand access, simple daily plans, color-coded and organized by the Levels in the Adventure using Google Apps for Education. We make it easy for teachers. The Infographic below depicts the menu options for teachers and students. iKnow follows this simple progression to promote success for students and an easy integration for teachers.

iKnow Google Apps for Education Teacher Edition and Level 2: Rain Forest Digital Web Adventure Student Menu.

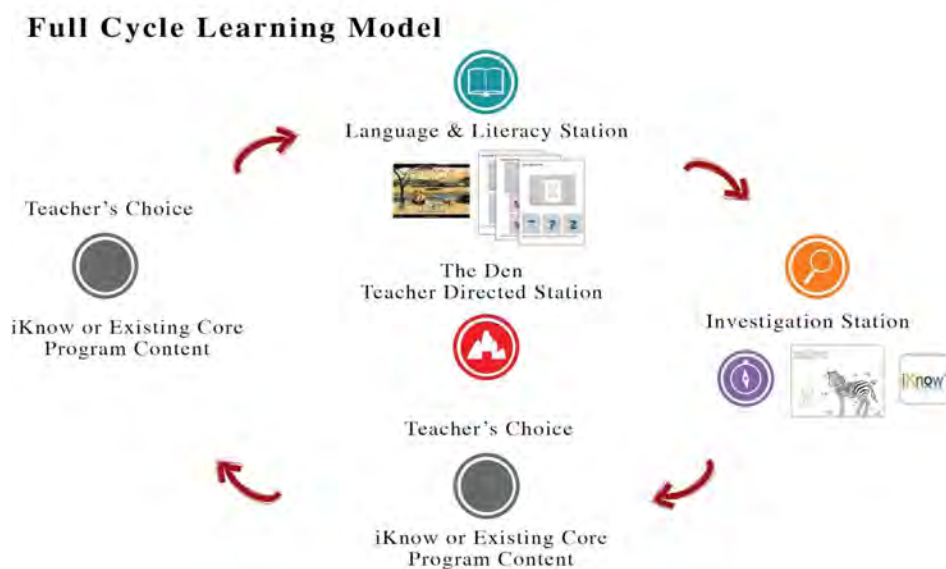
The screenshot shows a Google Drive interface with a folder named "iKnow ABC Teacher Edition - Lynn Bennett". Inside this folder, there is a list of folders for Levels 1 through 7. The folders are:

Name	Owner	Last modified
Level 1: The Legend	me	Aug 22, 2019 me
Level 2: Rain Forest - Animals	me	Aug 22, 2019 me
Level 3: Africa - Animals	me	Aug 22, 2019 me
Level 4: World - Animals	me	Aug 22, 2019 me
Level 5: Celebrate	me	Aug 22, 2019 me
Level 6: Rain Forest - Letters	me	Aug 22, 2019 me
Level 7		
Level 8		
Level 9		
Level 10		
Resources		
Contact		

A pop-up window titled "Level 2 - Rain Forest" is overlaid on the bottom right of the Drive interface. It features a green header with a mountain icon and five images of rainforest animals: a lion, a blue butterfly, a leopard, a green iguana, and a toucan.

## iKnow Daily Class Session Example 2

This example is from Level 3: Africa. To provide insight into how the Full Cycle Learning Model works, please see the below infographic. On this day, the students receive a clue from *The Pride*, written in rhyme. Students move and breathe with yoga-inspired poses with phonemic awareness timed to the movement. Students also received the experience of having an expert from the World Wildlife Fund (WWF) “Beam In” to talk to the students about his trip to Africa. He showed the students videos he shot, using Google Meet (additional technology the students learn to use). Students were able to ask the expert questions by their teachers typing in what they were asking. Following the group activity, the students begin to move through the Literacy and Investigation Stations. At the Literacy Station students have the opportunity to participate in group or self-directed activities: coloring activity (animal letter and name); make a video talking about the animal or read using the read to me feature and interact with the eBook. During the transition in between Stations students participate in breath and movement experiences to help refocus their learning objectives. At the Investigation Station students learn about the Serengeti, discover why a zebra has stripes, paint a portrait of a zebra, take a picture of their activity or progress and using the iKnow ABC Adventure App to activate the secret letter of the day.



Investigation Station unlocks the ability to explore new STEAM concepts and project-based learning as the student discovers how they work is of critical importance to early learners, particularly those who are high-need or acquiring the English language. Here they have the ability to formulate new ideas by discovering how things are connected (Guccione, 2011) .

Language and Literacy Station is the literacy station designed to allow all students to interact directly with the curriculum developed to teach specific skills and allows them to experience it in a variety of ways. Repetition is important for the student to retain the skill and

information learned. The tablets are then used by the student to record their progress and to take pictures of their accomplishment.

### Two Year Pilot Program

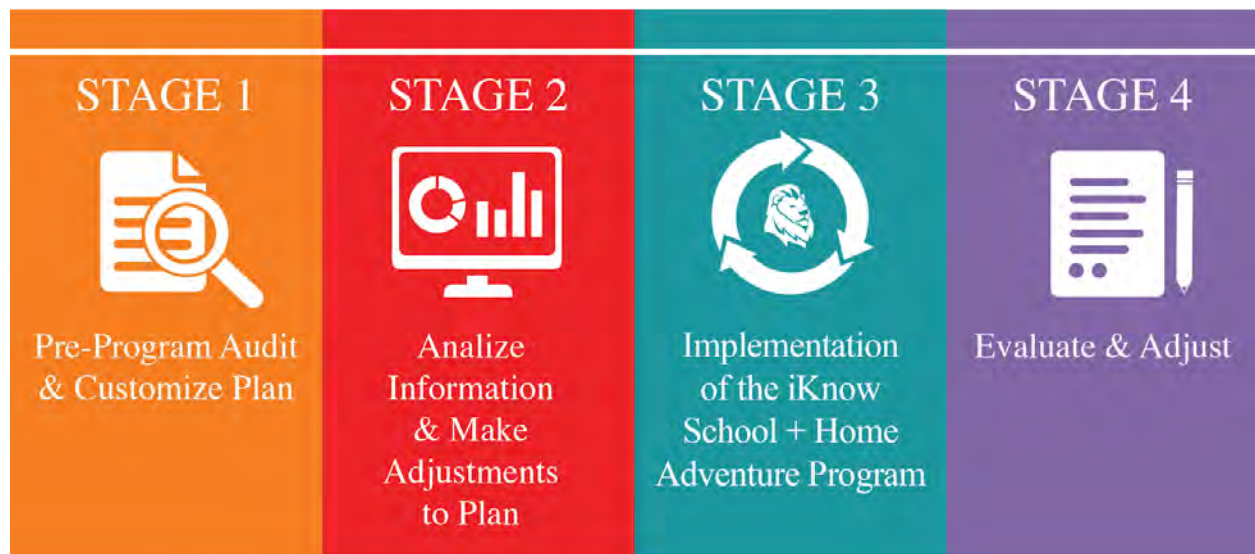
The iKnow + School Home Adventure program was implemented into two schools through a series of professional development sessions, parent workshops, and the integration of the iKnow School + Home Adventure into the typical instructional hours. Teachers participated in professional development sessions designed to help with the implementation process and instructional models within the classroom environment. Teacher support is critical. Each classroom receives access to the Digital Library with materials for the project-based learning activities.

For high-need learners to achieve success in the iKnow School + School Adventure program, parents need to be involved and part of the learning journey of the student. Also critical to the implementation plan is that each participating school have desktop computers or laptops, smart boards, iPads or other tablet devices accessible to the students at a ratio of no more than two students per tablet. Each school facility must also be equipped with Wi-Fi capabilities.

### Stages of Project Implementation

The implementation process for this project is divided into 4 stages and utilized each year of the program. The process of implementation uses an explicit and systematic method to allow for measurements and duplication and replication of the model.

### Stages of Project Implementation



### Stage 1: Pre-Program Audit and Customize Plan

The purpose of the pre-program audit and customization plan is to establish a baseline measurement for each school and their students so that the programs can be customized to meet the needs of each school. During the audit we reviewed existing technology at the overall school level and within each classroom as well as assess school climate.

### Stage 2: Analyze information

During stage 2 we reviewed and analyze the data collected in stage 1 so that the programs will be able to improve the student learning experience. The team will use the data gathered to identify priorities and customize the plan for implementation. The feedback allows for improvements and adjustments before the program is implemented.

### Stage 3: Implementation

During the implementation stage, the iKnow School + Home Adventure program was integrated into the traditional classroom instruction time. Virtual meetings with the participating teachers was done by the iKnow School + Home Adventure. The programs required that both the school site and the at home users to have a Wi-Fi connection, as well as access to iPads or tablet, laptop and or computer. If there is no access for the at home users, alternative solutions can be recommended such as access computers at local libraries, local boys and girls clubs or local community centers.

### Stage 4: Evaluate and Adjust

Each teacher was required to evaluate the participating student's performance three times per year – at the beginning of the year; mid-year and at the completion of the school year. The school used existing assessment tools including Aims Web and MAP. In addition, students evaluated themselves as well as the teachers through the iKnow School + Home Adventure innovative portfolio assessment. Here students work together to document their progress throughout the program by creating videos, taking photos and recording audio snippets throughout their educational journey. The iKnow ABC App also has a built-in assessment component where it keeps track of each student's progress.

Year One of the pilot program included 108 children in five classrooms (six teaching professionals) at a high-needs urban elementary school in a large metropolitan school district who were enrolled in the 2016-2017 school year pilot test for the iKnow School Adventure. Each of these students followed the iKnow curriculum and advanced through the levels of the program during the school year. Standardized tests such as the AimesWeb Standardized tests; and Letter Name Fluency and Letter Sound Fluency Classroom assessments were used to test the children three times during the pilot including at the outset, in the middle and at the end of the pilot.




Teacher Surveys were implemented so that the teaching professionals could provide their feedback as to what worked in their classroom and what needed to be improved upon. The survey covered content integration questions as well as basic technology questions. In addition, an hour long, post-pilot phone call was conducted with the lead teacher.

Year Two involved creating and implementing iKnow School Adventure 2.0 due to feedback we received from the students and teachers who participated in Year One the pilot testing. Teachers reported that students had a difficult time using some of the features in the Google Apps for Education Suite because they are non-readers. These applications allowed for limited customization and implementation of graphics to help with navigation for young users and non-readers.

In utilizing the feedback from both the teachers and students the iKnow team was able to change the iKnow School Adventure to a secure JavaScript customized web component to upgrade the user experience for young children. We feel this is fundamental to the success of our program. The feedback from the teachers and the user experience was noted through virtual conference calls as well as several calls between the iKnow team and the Lead Teacher. These upgrades will prove vital for creating a new sustainable and scalable model for Early Education. iKnow also provides students in low-income areas the opportunity to achieve technology literacy as well as confidence in the use of technology that is key to learning today. The beta version of iKnow School + Home Adventure 2.0 was implemented in Year Two of the pilot program, during the 2017- 2018 school year.

# Rain Forest: Level 2 Phonemic Awareness

## RAIN FOREST LEVEL 2 - ANIMALS

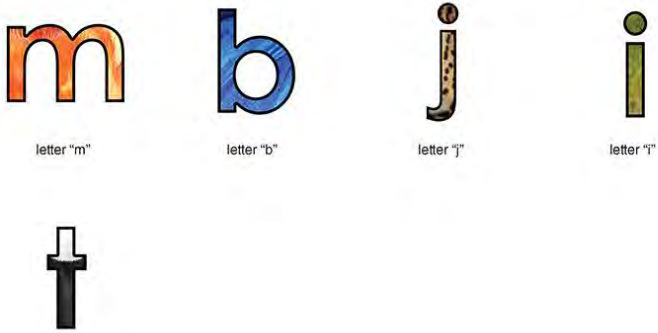


monkey butterfly jaguar iguana

toucan

# Rain Forest: Level 6 Phonics

## RAIN FOREST LEVEL 6 - LETTERS



letter "m" letter "b" letter "j" letter "i"

letter "t"

## Rain Forest: Level 2 Teacher’s Edition Resources

LEVEL 2 - RAIN FOREST			
	Large Group	Secret Sounds	Large Group
MONKEY	<b>Message from the Pride</b> Rhyming Clue	<b>Digital Web Adventure</b> Monkey Picture: Intro Letter Sound	<b>Select Secret Animal or Letter</b> Monkey and "m"
	<b>Draw letters in the air</b> m, b, j	<b>Rain Forest eBook</b> Read-to Me	<b>Q&amp;A Session</b> Critical Thinking
	<b>Animal Inspired Yoga Video</b> Monkey	<b>Student Safari Guide</b> Color the monkey	<b>Draw letters in the air</b> m, b, j
		<b>Activity or Project</b> Choose one option	<b>Award Pride Points</b> Trustworthiness
		<b>Make a Video</b> Say the letter sound and something you like about monkey	
BUTTERFLY	<b>Message from the Pride</b> Rhyming Clue	<b>Digital Web Adventure</b> Butterfly Picture: Intro Letter Sound	<b>Select Secret Animal or Letter</b> Butterfly and "b"
	<b>Draw letters in the air</b> m, b, j	<b>Rain Forest eBook</b> Read-to Me	<b>Q&amp;A Session</b> Critical Thinking
	<b>Animal Inspired Yoga Video</b> Butterfly	<b>Student Safari Guide</b> Color the butterfly	<b>Draw letters in the air</b> m, b, j
		<b>Activity or Project</b> Choose one option	<b>Award Pride Points</b> Big positive change
		<b>Make a Video</b> Say the letter sound and something you like about butterfly	
JAGUAR	<b>Message from the Pride</b> Rhyming Clue	<b>Digital Web Adventure</b> Jaguar Picture: Intro Letter Sound	<b>Select Secret Animal or Letter</b> Jaguar and "j"
	<b>Draw letters in the air</b> m, b, j	<b>Rain Forest eBook</b> Read-to Me	<b>Q&amp;A Session</b> Critical Thinking
	<b>Animal Inspired Yoga Video</b> Jaguar	<b>Student Safari Guide</b> Color the jaguar	<b>Draw letters in the air</b> m, b, j
		<b>Activity or Project</b> Choose one option	<b>Award Pride Points</b> Follow through
		<b>Make a Video</b> Say the letter sound and something you like about jaguar	
	<b>Phonological Awareness</b> Speaking & Listening	<b>Phonological Awareness</b> Letter Sounds: m, b, j	<b>Speaking &amp; Listening</b> Critical Thinking

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## Rain Forest: Level 2 Teacher’s Edition Resources

LEVEL 2 - RAIN FOREST			
	Large Group	Secret Sounds	Large Group
IGUANA	<b>Message from the Pride</b> Rhyming Clue  <b>Draw letters in the air</b> i, t  <b>Animal Inspired Yoga Video</b> Iguana	<b>Digital Web Adventure</b> Iguana Picture: Intro Letter Sound  <b>Rain Forest eBook</b> Read-to Me  <b>Student Safari Guide</b> Color the Iguana  <b>Activity or Project</b> Choose one option  <b>Make a Video</b> Say the letter sound and something you like about iguana	<b>Select Secret Animal or Letter</b> Iguana and "i"  <b>Q&amp;A Session</b> Critical Thinking  <b>Draw letters in the air</b> i, t  <b>Award Pride Points</b> Figured it out
	<b>Message from the Pride</b> Rhyming Clue  <b>Draw letters in the air</b> i, t  <b>Animal Inspired Yoga Video</b> Toucan	<b>Digital Web Adventure</b> Toucan Picture: Intro Letter Sound  <b>Rain Forest eBook</b> Read-to Me  <b>Student Safari Guide</b> Color the toucan  <b>Activity or Project</b> Choose one option  <b>Make a Video</b> Say the letter sound and something you like about toucan	<b>Select Secret Animal or Letter</b> Toucan and "i"  <b>Q&amp;A Session</b> Critical Thinking  <b>Draw letters in the air</b> i, t  <b>Award Pride Points</b> Friendship
	<b>Phonological Awareness</b> Speaking & Listening	<b>Phonological Awareness</b> Letter Sounds: i, t	<b>Speaking &amp; Listening</b> Give examples of animals

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Rain Forest: Level 6 Teacher’s Edition Resources

LEVEL 6 - RAIN FOREST		
Large Group	Secret Letters	Large Group
<p><b>m</b></p> <p>Message from the Pride Rhyming Clue</p> <p>Draw letters in the air m, b, j</p> <p>Animal Inspired Yoga Video Monkey</p>	<p>Digital Web Adventure The Letter "m": Alphabetic Principle</p> <p>iKnowABC Adventure App Activate the letter "m"</p> <p>Play-Doh Letter Letter "m"</p> <p>Activity or Project Choose one option</p> <p>Take a Picture Play-doh letter m</p>	<p>Select Secret Animal or Letter Monkey and "m"</p> <p>Q&amp;A Session Critical Thinking</p> <p>Draw letters in the air m, b, j</p> <p>Award Pride Points Trustworthiness</p>
<p><b>b</b></p> <p>Message from the Pride Rhyming Clue</p> <p>Draw letters in the air m, b, j</p> <p>Animal Inspired Yoga Video Butterfly</p>	<p>Digital Web Adventure The Letter "m": Alphabetic Principle</p> <p>iKnowABC Adventure App Activate the letter "m"</p> <p>Play-Doh Letter Letter "m"</p> <p>Activity or Project Choose one option</p> <p>Take a Picture Play-doh letter m</p>	<p>Select Secret Animal or Letter Butterfly and "b"</p> <p>Q&amp;A Session Critical Thinking</p> <p>Draw letters in the air m, b, j</p> <p>Award Pride Points Big positive change</p>
<p><b>j</b></p> <p>Message from the Pride Rhyming Clue</p> <p>Draw letters in the air m, b, j</p> <p>Animal Inspired Yoga Video Jaguar</p>	<p>Digital Web Adventure The Letter "m": Alphabetic Principle</p> <p>iKnowABC Adventure App Activate the letter "m"</p> <p>Play-Doh Letter Letter "m"</p> <p>Activity or Project Choose one option</p> <p>Take a Picture Play-doh letter m</p>	<p>Select Secret Animal or Letter Jaguar and "j"</p> <p>Q&amp;A Session Critical Thinking</p> <p>Draw letters in the air m, b, j</p> <p>Award Pride Points Follow through</p>
<p>Phonological Awareness Speaking &amp; Listening</p>	<p>Phonics Letters: m, b, j</p>	<p>Speaking &amp; Listening Critical Thinking</p>

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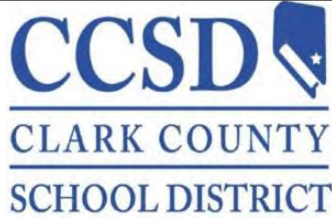
Rain Forest: Level 6 Teacher’s Edition Resources

LEVEL 6 - RAIN FOREST		
Large Group	Secret Letters	Large Group
<p>Message from the Pride Rhyming Clue</p> <p>Draw letters in the air i, t</p> <p>Animal Inspired Yoga Video Iguana</p>	<p>Digital Web Adventure The Letter "I": Alphabetic Principle</p> <p>iKnowABC Adventure App Activate the letter "I"</p> <p>Play-Doh Letter Letter "I"</p> <p>Activity or Project Choose one option</p> <p>Take a Picture Play-doh letter i</p>	<p>Select Secret Animal or Letter Iguana and "I"</p> <p>Q&amp;A Session Critical Thinking</p> <p>Draw letters in the air i, t</p> <p>Award Pride Points Figured it out</p>
<p>Message from the Pride Rhyming Clue</p> <p>Draw letters in the air i, t</p> <p>Animal Inspired Yoga Video Toucan</p>	<p>Digital Web Adventure The Letter "I": Alphabetic Principle</p> <p>iKnowABC Adventure App Activate the letter "I"</p> <p>Play-Doh Letter Letter "I"</p> <p>Activity or Project Choose one option</p> <p>Take a Picture Play-doh letter t</p>	<p>Select Secret Animal or Letter Toucan and "I"</p> <p>Q&amp;A Session Critical Thinking</p> <p>Draw letters in the air i, t</p> <p>Award Pride Points Friendship</p>
<p>Phonological Awareness Speaking &amp; Listening</p>	<p>Phonics Letters: i, t</p>	<p>Speaking &amp; Listening Critical Thinking</p>

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## Rain Forest: Level 2 and Level 6 Teacher's Edition Resources

LEVEL 2 AND LEVEL 6 - RAIN FOREST		
COMMON CORE STANDARDS	<p><b>COMMON CORE STANDARDS</b></p> <p>RL: 1, 2, 3, 4, 5, 7, 9, 10</p> <p>RI: 1,2,4,7,10</p> <p>RF: 1a,b,c, 2 a,b,c,d,e, 3a,b,d</p> <p>W: 1,2</p> <p>SL: 1a,b, 2, 3, 4, 5, 6</p> <p>L1: a,b,d,f</p> <p>L2: c,d</p> <p>L5a</p> <p>L6</p>	
	 	
	<p><b>TEACH &amp; LEARN</b></p>	
	<p>Ready, set, get focused</p> <p>Challenge/goal discovered</p> <p>Awareness of orders of events in a story</p> <p>Development speaking &amp; listening skills</p> <p>Phonemic Awareness</p> <p>Rhyming words and phrases</p> <p>Phonics</p> <p>Vocabulary development</p>	<p>Understand pictures have meaning</p> <p>Earth, Life, and Physical Science</p> <p>Recognize environmental sounds</p> <p>Critical thinking</p> <p>Problem solving</p> <p>Give examples of animals</p> <p>Distinguish between different animals</p> <p>Repetition for lasting effect</p>
	TEACH & LEARN	
Safari Guide - Teacher Edition		



*Performance Zone 2*  
**Grant Hanevold**  
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May 31, 2017

To Whom It May Concern:

I am writing to extend my support for the iKnow School Adventure and Home Adventure programs at C.C. Ronnow Elementary School. I supervise Mr. Popek, and I am keenly aware of his support for this program. It has been utilized at C.C. Ronnow and has directly addressed the needs of the children in his community through an innovative blended story-driven approach. The program provides a purpose for learning. Both the school and at-home models have multi-level accessibility to students at high risk of failure due to environmental barriers – those early learners who are also English language learners, high-need students who live in poverty and those learners who live in underperforming, inner-city schools. This is the exact prescriptive approach needed at C.C. Ronnow Elementary School.

The iKnow School Adventure, as a supplemental program at C.C. Ronnow ES, is designed to complement the core curriculum. iKnow has been customized to meet the specific needs of each identified classroom, determined by time allocated, technology availability, and specific classroom, and school academic and social goals. The iKnow School Adventure has been the only new curriculum, core or supplemental, integrated into the Kindergarten classes at C.C. Ronnow Elementary School. The results have been astounding, with almost all students achieving 50% or higher in letter name fluency and letter sound fluency results. C.C. Ronnow ES implemented the pilot from October 18, 2016 to January 5, 2017, Monday - Friday, for 90-minute per day. Students experienced Large Group Activities, Language and Literacy Stations, and Investigation Stations.

Propelled by a belief that improving our public schools was too big a task for a school district to undertake alone, The Public Education Foundation (PEF) stepped in to offset the cost to deserving schools. The Foundation continues to be guided by a spirit of innovation and a willingness to take risks in an unending pursuit of bold new thinking and innovative approaches to public education. C.C. Ronnow has been grateful to partner with the PEF on this project. The continued partnership between Take Pride Learning® and the Public Education Foundation would certainly promote the development, iteration, implementation, and feasibility testing of an early learning innovative model into schools in CCSD within the Foundation's Literacy Liftoff Program and the iKnow School Adventure.

I highly recommend you continue the pilot program that is off to a great start at C.C. Ronnow Elementary School. Please reach out to me if you have any questions or concerns.

Respectfully,

A handwritten signature in blue ink, appearing to read "Grant Hanevold".

Grant Hanevold



Clark County School District, 5100 West Sahara Ave. Las Vegas, NV 89146 USA – (702)799-5000



C.C. RONNOW



# WELCOME TO THE NEXT LEVEL

*Chris D. Popek*  
Principal

*Michelee Q. Cruz-Crawford*  
Assistant Principal

April 7, 2017

To Whom It May Concern:

I am writing this letter to show my support for the program iKnow School Adventure. iKnow ABC engaged our kindergarten students in learning their letter names and letter sounds through beautiful music, eye-catching e-books, fun projects, and engaged our student in using technology.

Our kindergarten team was fortunate to have piloted iKnow ABC at CC Ronnow Elementary. iKnow ABC helped support our students phonetic skills by helping them master their letter names and letter sounds. The students were challenged to go through "the adventure" and uncover the letters of the alphabet. As the students uncovered the letters they got to practice the letter names, letter sounds, and link each letter to an animal. As a bonus, the students were able to learn about animals because the program uses realistic images and shares interesting facts about the animals.

As a whole, the program gets students actively engaged through breathing and movement, student projects, and the use of technology. Through the use of breathing and slow movement students are able to focus, therefore getting them physically and mentally ready to learn. The hands on projects got student to do fun activities like painting a butterfly and building a bridge. For the first time in their education, our kindergarten students got to use iPads. The iKnow e-books are beautifully crafted as a result captivating its audience. The technology piece of the program helped our students learn how to take pictures and make videos using iPads. Students were also able to upload pictures and videos to a Google Drive as part of a culminating lesson task. The teacher then got to use that picture or video as a formative assessment. iKnow ABC was a positive learning experience for our students at CC Ronnow.

I was the learning strategist assigned to help our kindergarten teachers incorporate iKnow ABC into the kinder curriculum. Cindy and Daryle Coleman were always available for any questions or concerns. Getting to see this program first hand, I saw the impact it had on our students. Getting to know Cindy Coleman, the creator of the program, let me understand that this program was created with love, the love to teach children, and to help captivate students in their learning. I invite you to open your students' minds with iKnow and let the adventure of learning begin.

Sincerely,

Damaris Rivera  
Literacy Learning Strategist

1100 Lena Street, Las Vegas, NV 89101 ♦ (702) 799-7159 ♦ Fax (702) 799-7164

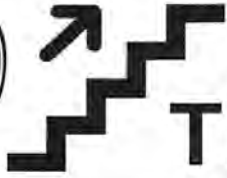
**CCSD**  
CLARK COUNTY  
SCHOOL DISTRICT







C.C. RONNOW



# WELCOME TO THE NEXT LEVEL

*Principal Chris D. Popek*

*Assistant Principal Michele Q. Cruz-Crawford*

April 6, 2017

To whom it may concern,

I'm writing in support of the pilot implementation of the iKnow School Adventure program at C.C. Ronnow Elementary School during the 2016-2017 school year.

I personally worked with Daryle and Cindy Coleman to implement the program along with Ronnow's Assistant Principal, the full kindergarten team, and one of the school's literacy learning strategists.

The school's kindergarten teachers were provided training to implement the program along with technology training to assist with facilitating student use of Ipads during iKnow instruction. The school was provided with additional technical support in order to transition iKnow training to instruction in a quick and efficient manner.

The iKnow program kicked off at Ronnow with an amazing assembly that included all kindergarten students, musicians, a jungle theme, and event coordinators that provided all students with an instrument to play. The assembly was amazing and brought immediate positive energy to the program.

Our kindergarten students truly enjoyed using the program as the jungle and animal theme was extremely engaging to students and led to consistent engagement that can be challenging to attain for that specific age group. After completing the iKnow program all kindergarten students were assessed. We found significant growth on letter sound recognition. More specifically, the teachers that implemented the program with full fidelity showed high impact growth for that skill.

The iKnow team was very diligent while working with our teachers to meet their needs and requests and also to adapt the program as needed.

If you have any questions please do not hesitate to contact me.

Chris Popek

Principal, C.C. Ronnow Elementary

1100 Lena Street, Las Vegas, NV 89101 ♦ (702) 799-7159 ♦ Fax (702) 799-7164





## References

- Aguilar, N. (2016). In Nicholson J., Perez L., Kroll L. and Washington S.(Eds.), *Examining the integration of science, technology, engineering, and mathematics (STEM) in preschool and transitional kindergarten (TK) classrooms using a social-constructivist approach* ProQuest Dissertations Publishing.
- Carta, J. J., Greenwood, C. R., Atwater, J., McConnell, S. R., Goldstein, H., & Kaminski, R. A. (2014). Identifying preschool children for higher tiers of language and early literacy instruction within a response to intervention framework. *Journal of Early Intervention*, 36(4), 281-291. 10.1177/1053815115579937
- Doyle, B. G., & Bramwell, W. (2006). Promoting emergent literacy and social--emotional learning through dialogic reading: Striving for a balance between emergent literacy and social-emotional development honors young children's development and creates a more powerful learning experience in both domains. *The Reading Teacher*, 59(6), 554. 10.1598/RT.59.6.5
- Forehand, M. (2005). Bloom's taxonomy: Original and revised. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology*. Retrieved September 20, 2014, from <http://projects.coe.uga.edu/epltt/>
- Gellert, A. S., & Elbro, C. (2017). Does a dynamic test of phonological awareness predict early reading difficulties? A longitudinal study from kindergarten through grade I. *Journal of Learning Disabilities*, 50(3), 227-237. 10.1177/0022219415609185 Retrieved from <http://ezproxy.library.unlv.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=122322991&site=ehost-live>
- Guccione, L. M. (2011). Integrating literacy and inquiry for English learners: Through inquiry, English learners take their place in the classroom community--and develop both their content knowledge and their language skills. (report). *The Reading Teacher*, 64(8), 567. 10.1598/RT.64.8.2
- Kaumbulu, B. (2011). In Folz B., Birnbaum B. and Hazari S.(Eds.), *Effective technology integration for digital literacy development in kindergarten through second grade* ProQuest Dissertations Publishing.
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.
- Piaget, J. (1952). *Play, dreams and imitation in childhood*. New York: Norton.
- Salonius-Pasternak, D. E., & Gelfond, H. S. (2005). The next level of research on electronic

play: Potential benefits and contextual influences for children and adolescents. *Human Technology*, 1(1), 5-22.

Singer, J. & Singer, D. (2006). Preschoolers' imaginative play as precursor of narrative consciousness. *Imagination, Cognition and Personality*. 25(2), 97-117.

Vygotsky, L. S. (1967). Play and its role in the mental development of the child. *Soviet Psychology*, 5(3), 6-18.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.