

Preliminary findings on e-reader use in Dallas ISD Schools, May 2016

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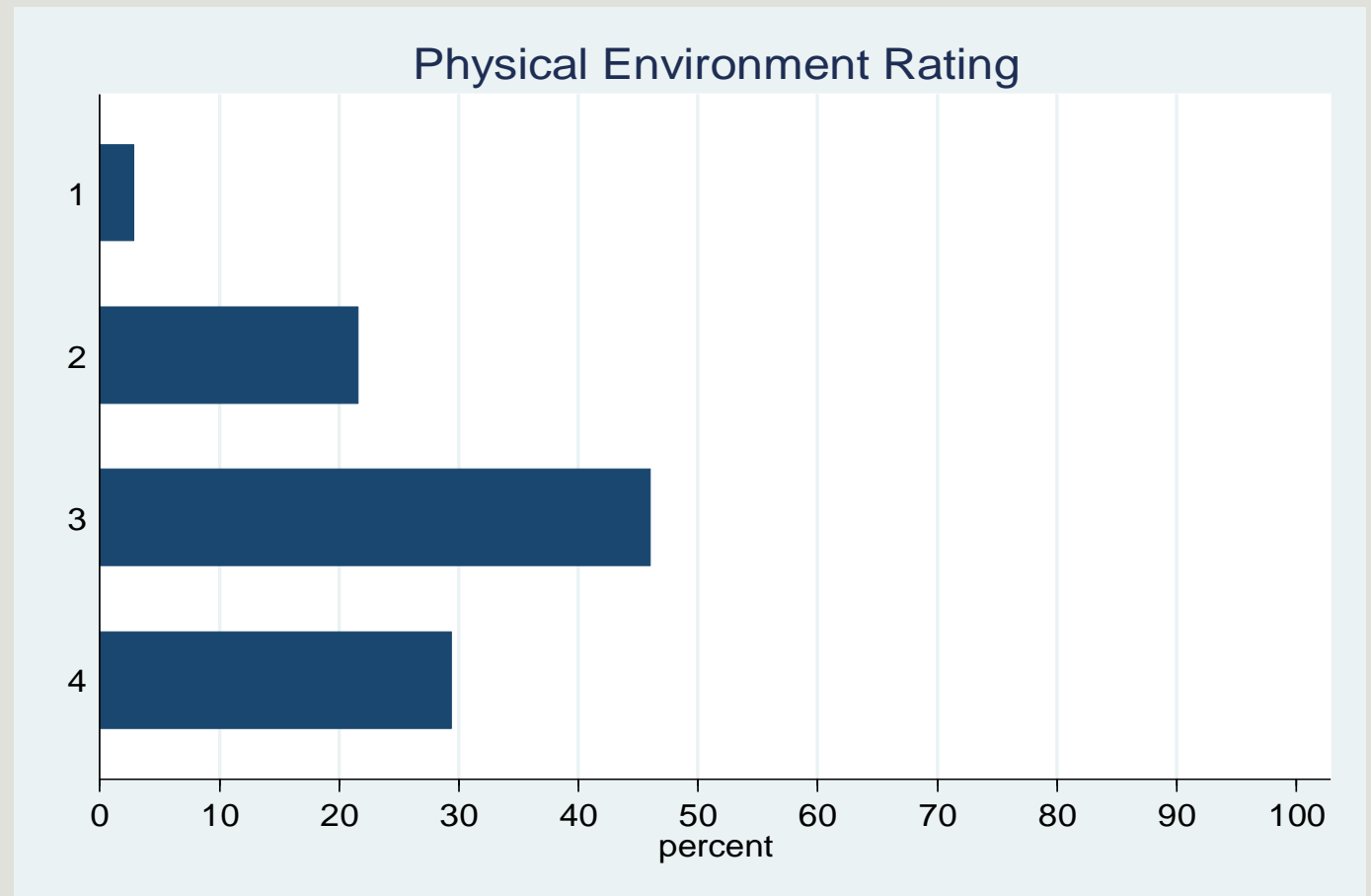
RESEARCH FUNDER: JAIME DAVILA

Research overview

- ❖ 102 observations of e-reader use conducted in 7 DISD schools and approximately 70 classrooms from mid-February through mid-April, 2016
- ❖ Standardized, well-tested observation instrument capturing 10 core elements of digital and blended instruction, rated on a 0-4 scale
- ❖ Instrument also records narrative comments, total instructional time and time on task, time students interact with live instructor, functionality/operability of technology, etc.
- ❖ e-readers were functional for students in 87% of observations
 - Time lost due to problems with functionality = 2 minutes on average (7% of total time observed)
 - Students were off task 3.2 minutes (or 11.9% of the total time observed)
- ❖ There was some live instructor driven instruction in 76.5% of e-reader observations

Highly-rated example: Four rows of students divided in half and facing the center of the room. Teacher walks down the middle. Students are working quietly with Kindles independently. No audio of any kind. Some students had a hard time settling down, so the teacher implemented swift behavior redirections.

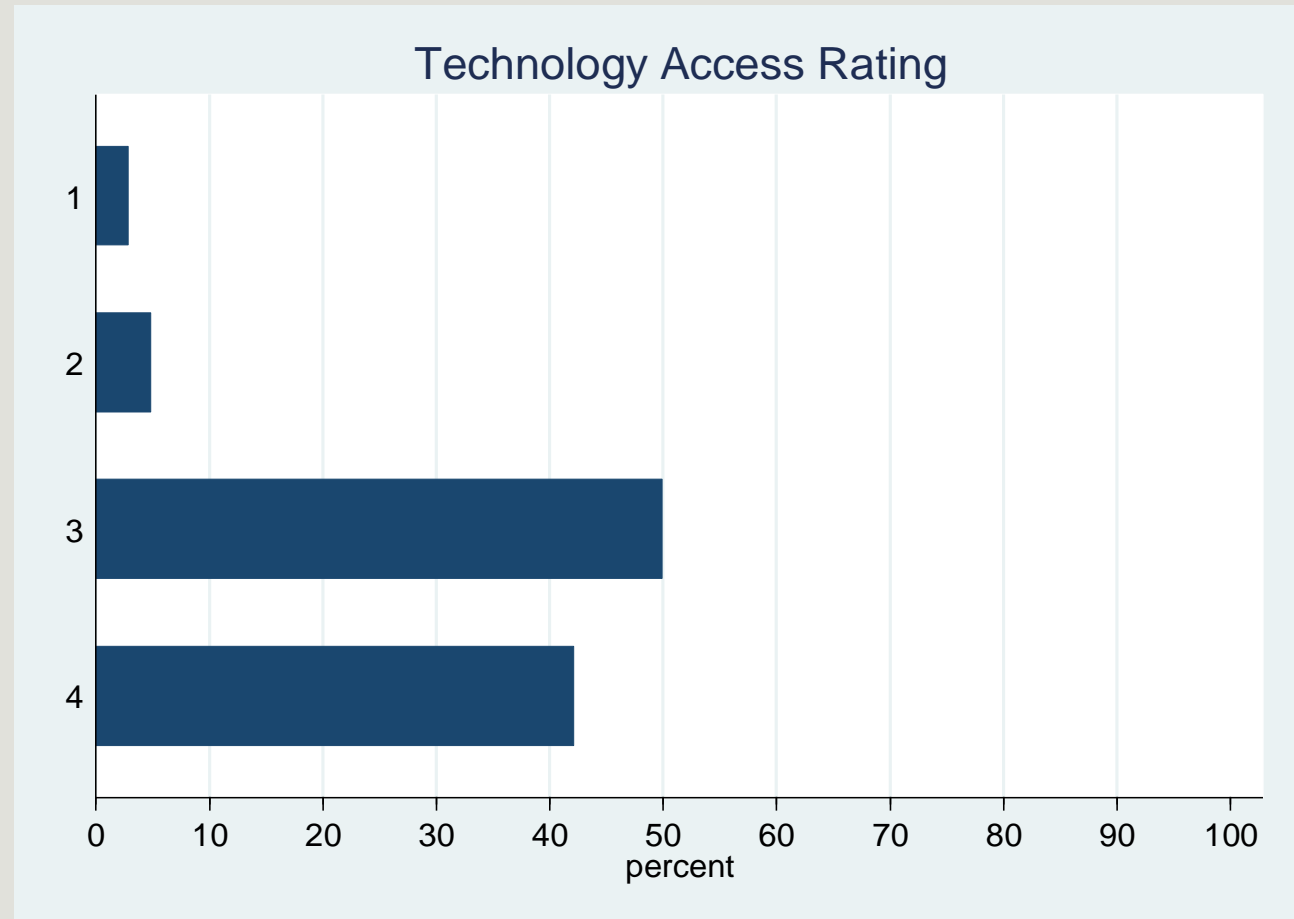
Low-rated example: Students were to complete an assignment using the Kindle, but there were technical issues, classroom management issues, etc., and the maximum amount of time that any student in the class was working was five minutes out of thirty.



- [4] Students have full access to the instructional setting throughout the session.
- [3] The physical environment presents occasional or partial enhancements to quality learning opportunities.
- [2] The physical environment does not get in the way of quality learning opportunities, but does not contribute to them.
- [1] The physical environment presents occasional or partial barriers to quality learning opportunities.
- [0] The physical environment is a significant barrier to quality learning opportunities.

Highly-rated example: The teacher is using her laptop and a projector to share a video regarding adaptations (functional vs. behavioral) so that students can complete a chart about ecosystems. The teacher and students are all connected wirelessly. Each student has a Kindle at their desk and the teacher provides clear behavioral expectations regarding the use of the Kindles. Technology is safe, operable, and equitable.

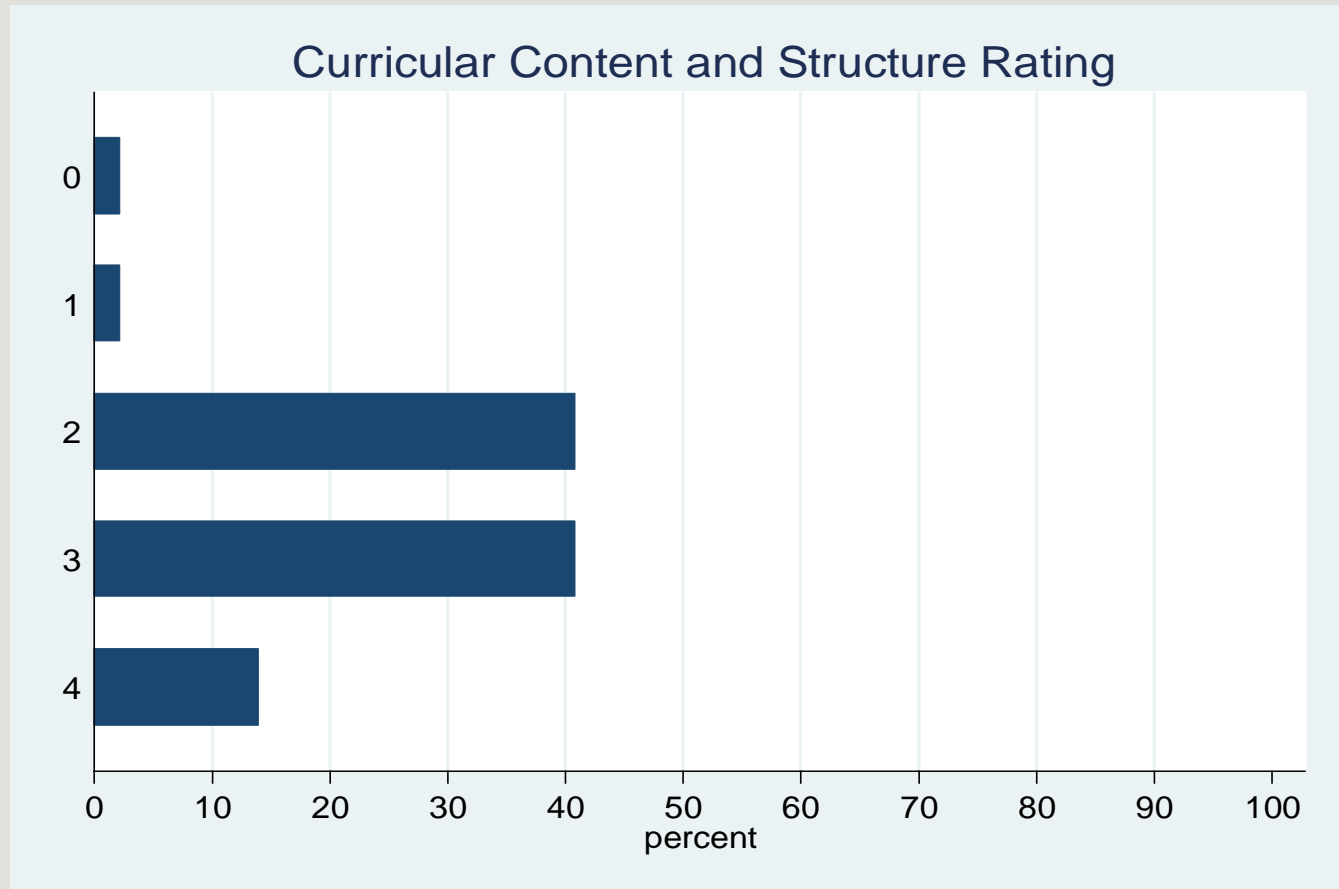
Low-rated example: The Kindle COW for this class malfunctioned, so the students had to borrow Kindles from the previous class. This caused considerable confusion regarding log in, etc. The kindles connected over wifi, but students had significant problems getting into the Kindles to complete the lesson.



- [4] Students have full access to the instructional setting throughout the session.
- [3] Students have access to the instructional setting throughout most of the session.
- [2] Students have access to the instructional setting throughout some the session.
- [1] Students had multiple problems accessing the instructional setting throughout the session.
- [0] No students were able to access the instructional setting.

Highly-rated example: Students are using Kindles and the internet website Kiddle to access research information regarding an endangered species. The teacher provided students with a three column outline to scaffold what she expected and directed them to Kiddle to answer the questions. The lesson had clear learning objectives, behavior objectives, rigor, sequence and structure because all of the expectations are written on the outline as well as discussed orally.

Low-rated example: The teacher had intended for the students to access the lesson through Schoology on the Kindle. When that didn't work, she transitioned them onto Microsoft surfaces. While there were no clearly stated learning objectives, the teacher explicitly walked students through the process of signing into the programs and tried to help them as much as possible. Students had to log in as a class prior to individual log-ins.



[4] Curricular content and structure observed to create quality learning opportunities throughout session.

[3] Curricular content or structure observed to create quality learning opportunities throughout session

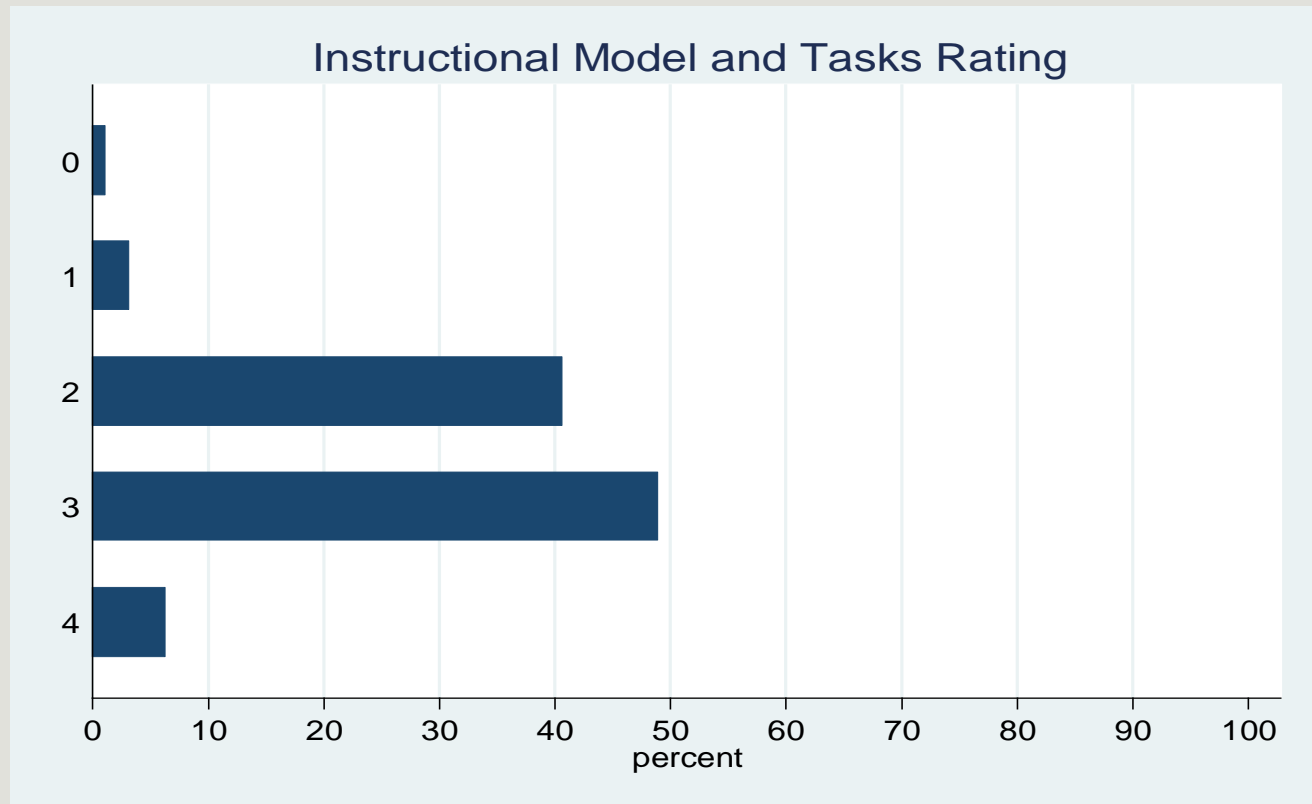
[2] Curricular content or structure observed to create quality learning opportunities occasionally during session.

[1] Neither curricular content nor structure create or inhibit quality learning opportunities.

[0] Curricular content or structure inhibit quality learning opportunities throughout session.

Highly-rated example: Teacher provides instruction to whole group and then sends students to centers and works with a small group of four students. Very clear sequence, structure, level of rigor (builds in examples and intensity). Teacher adapts on the spot to students' needs in small group instruction. Students log into RM City as individual users and record answers in a math journal. Students also used all in learning clickers, therefore, the lesson had at least three different modalities.

Low-rated example: The instructor served mostly as a passive, unregimented facilitator for the larger part of the lesson in the largely blended lesson. The instructor struggled for 16 minutes to gain control of his students and the class lesson. The instruction did not appear to meet the needs of most of the students. The lesson during the observation was not multi-modal.



[4] The instructional model and tasks consistently facilitate quality learning opportunities and adapts to observed (or known) student needs.

[3] The instructional model and tasks mostly facilitate quality learning opportunities and adapts to observed (or known) student needs.

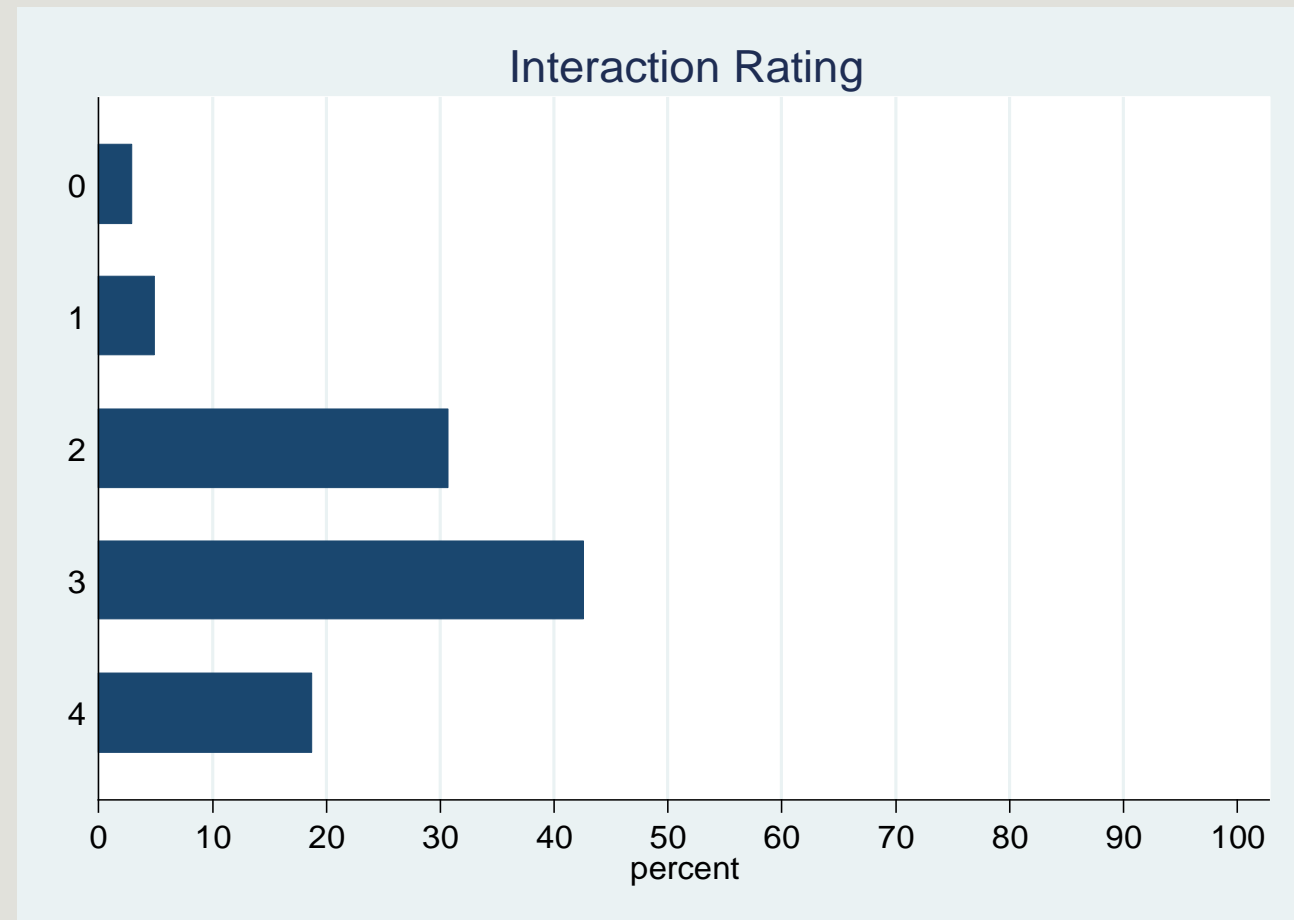
[2] The instructional model and tasks facilitate some quality learning opportunities but do not adapt to observed (or known) student needs.

[1] The instructional model and tasks do not facilitate quality learning opportunities and do not adapt to observed (or known) student needs.

[0] The instructional model and tasks inhibit quality learning opportunities and do not adapt to observed (or known) student needs.

Highly-rated example: The interaction between the students, technology, and teacher appeared to be highly constructive. She has provided students with timer to give them guidance on their activity time management. All students appear to have positive interactions with the instructional resources (curriculum, software, etc), as they affirm their own achievements in Kahoot.

Low-rated example: The classroom teacher made little effort to try to determine the problem with the e-readers; she dismissed it as a weather problem and did not try to resolve it (so students turned instead to looking at books rather than working on the e-readers).



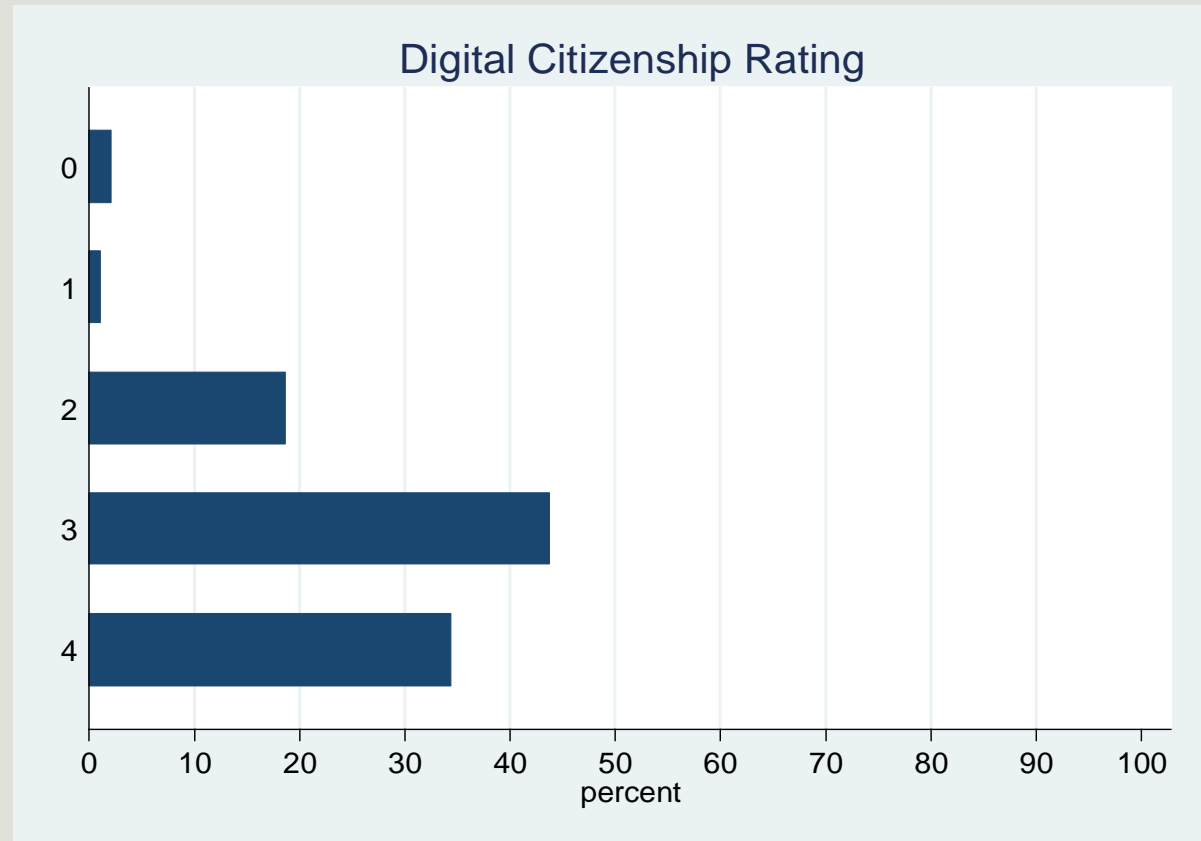
- [4] Instructors and resources have constant, constructive interaction with students.
- [3] Instructors and resources mostly have constant, constructive interaction with students.
- [2] Instructors or resources have some constructive interaction with students.
- [1] Instructors and resources have no constructive interaction with students.
- [0] Students, instructors or resources have destructive interaction with one another.

Highly -rated examples:

All students appear to be very engaged and using the technology as intended with no notable distractions.

Students were on task and using appropriate websites.

Low-rated example: One e-reader is loud and giving the applause out loud, etc. One student is distracting others. Most students had to get up and walk up to the screen to see what to type into the Kindle. This seemed to open the students up to chatter, etc.



[4] All students are using the technology as intended by the instructor and/or instructional program.

[3] Most students are acting responsibly and using the technology in intended ways, and there are no apparent distractions.

[2] Some students are using technology in unintended ways but distractions are minimal.

[1] A sizable fraction of students are using the technology in unintended ways and creating distractions in the environment.

[0] Most students are violating intended uses of the technology (e.g., switching to games, using for inappropriate material) and creating distractions in the environment.

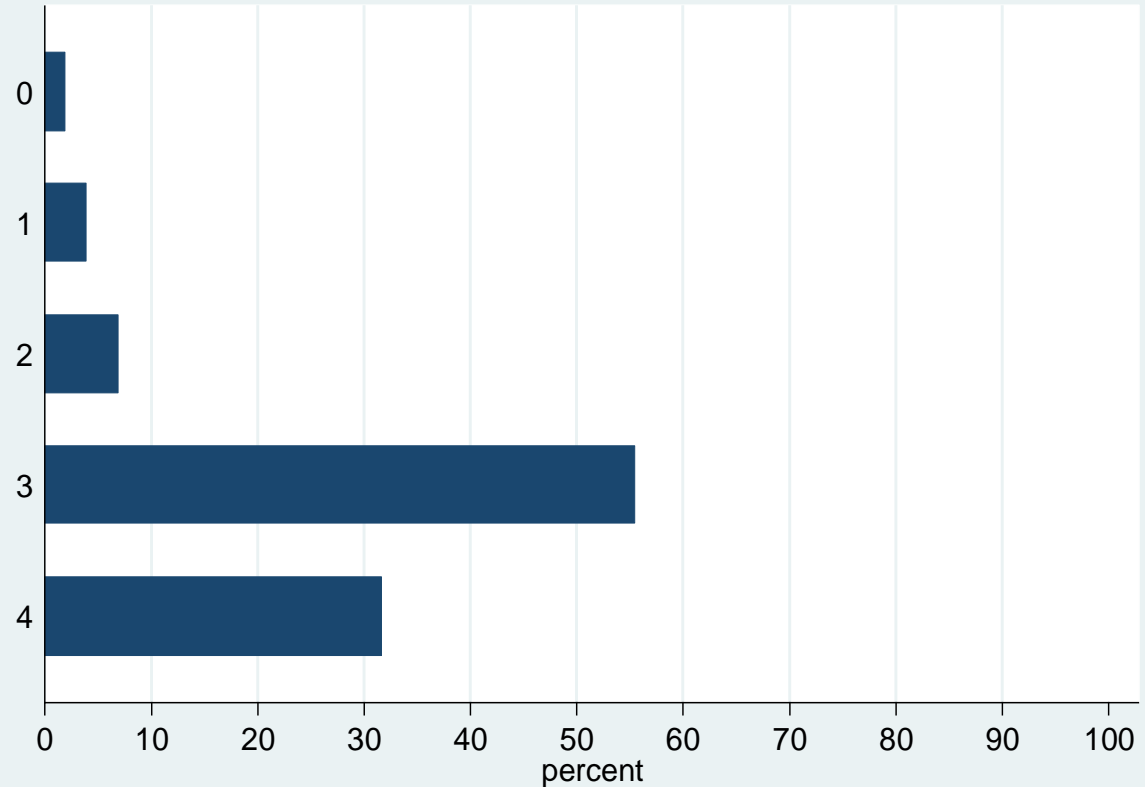
Highly-rated examples:

Students were enthusiastic about the activity and were on task throughout the observation.

All students were 100% engaged.

Low-rated example: Students were rarely engaged, as they only actively engaged for the last 6 minutes of the observed lesson with little to no self-regulation and persistence for their grade level. The students seem to have little to no level of community within instructional setting of this classroom during the observation.

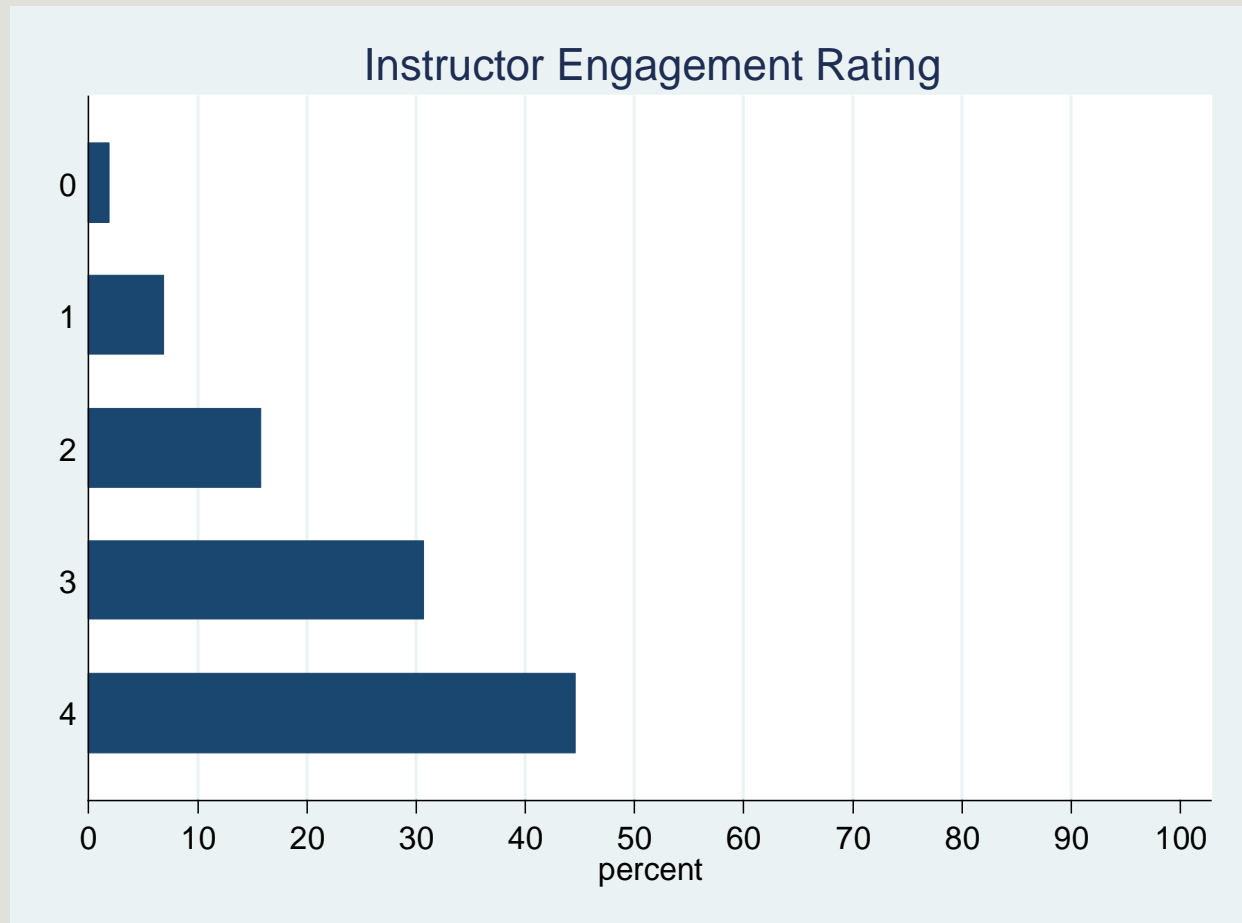
Student Engagement Rating



- [4] Students have full engagement in instruction.
- [3] Students are engaged in most of the instruction.
- [2] Students are engaged in some of the instruction.
- [1] Students rarely are engaged in instruction.
- [0] Students are not engaged in instruction.

Highly-rated example: The teacher appeared to be fully engaged in the instruction with the whole class while balancing specific attention on her small group. The teacher was actively engaged with the students and offering encouragement to the whole class in their work.

Low-rated example: The instructor seemed very frustrated or “put off” from the start. She was very snarky with the students and snatched one of the Kindles away from a student. She was very derogatory to them and kept asking them “What are you waiting for?” The students seemed afraid of her and unclear of the expectations. She was negative in her method of encouraging them to get started.



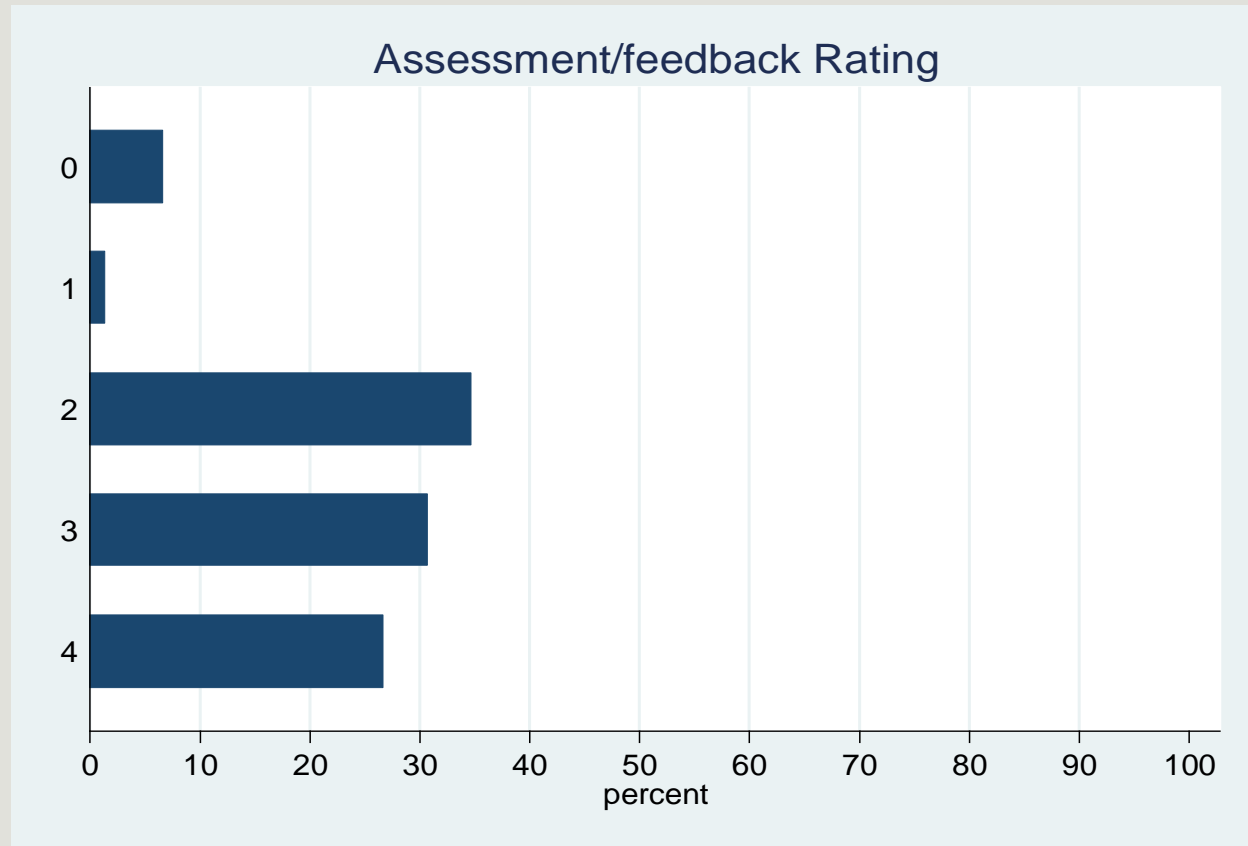
- [4] All instructors have full engagement in instruction.
- [3] Instructors are engaged in most of the instruction.
- [2] Instructors are engaged in some of the instruction.
- [1] Instructors rarely are engaged in instruction.
- [0] Instructors are not engaged in instruction.

Highly-rated examples:

Both self-assessment with the devices and group assessment (using the whiteboard application) were employed in the lesson; the teacher then led the students in reflecting on what they learned from the assessment.

Students were asked for verbal and written responses to various questions by the teacher and the technology program.

Low-rated example: Student learning during the brief lesson did not appear to be individualized or continuous throughout the session. The intentions of the lesson did match the posted learning objectives; little to no lesson occurred nor did any assessment occur during this observation.



- [4] Student learning is assessed frequently in varied formats that facilitate learning opportunities.
- [3] Student learning is assessed frequently in a single format that facilitates learning.
- [2] Student learning is assessed once in a way that facilitates learning opportunities
- [1] Student learning is assessed during the session but is not constructive towards learning.
- [0] Student learning is not assessed during the session.

Ongoing research activities

- ❖ Observation data will be linked to DISD student record data and ratings will be analyzed across student and classroom characteristics
- ❖ Additional qualitative and quantitative analysis will be conducted to examine associations between e-reader use and student achievement
 - What factors in e-reader implementation impede or support student access to quality learning?
 - What policies and strategies at the district, school and classroom levels hold the most promise for increasing e-reader effectiveness in improving student achievement?
- ❖ Data from DISD expected in August 2016