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AFT/ATF Leadership School – May 2017

How do teachers really use data from mandated diagnostic or intervention programs?

Rationale

What student data do teachers really use to determine students' needs? Imagine a classroom without packaged curriculum, expensive diagnostic programs, state, district, or school mandates. Would we be destine to fail to meet our students' needs? Would we be operating blindly, not knowing the abilities and potentials of our students? Would we just wing it or teach the exact same curriculum in the exact same way to all students? I doubt any educator would answer these with yes. I doubt any public education stakeholder would, yet this seems to be the underlining fear of state and to some extent district leadership.

I set out to look at how elementary school teachers use state mandated assessments. I went into the exploration with a bias. I myself an elementary school teacher do not use the data from iStation for much. I administer the assessment and make sure I am meeting the state's mandate(s) and my school's guidelines, and occasionally I would share the data with parents if the data indicated extreme struggle, provided evidence of lack of effort, or if the results were in stark contrast to what I saw in class assessments or everyday work. So, from my perspective these mandated assessments did not serve the primary purpose of assessment which is to improve student learning and teacher practice. I began with the belief that iStation assessment was solely for reporting purposes. What the state would do with the data was not clear to me.

I suspect that mandated diagnostic and progress monitoring programs, such as iStation are being use to meet the need of being used. I want to believe that iStation (and litany of others mandated in our state and district as I imagine they are being mandated in other states) was mandated by well intentioned policy making bodies to make knowing our students easier, collecting data easier but the evidence of those good intentions just aren't there. Publically shared information about iStation use in our state is almost universally used to criticize teachers and districts. In addition I personally see a problem with gaining knowledge of my students through anything that is standardized, these tests in particular seem counterintuitive to the complexity of knowing people.

To answer my question, I attempted to gather information from colleagues who used iStation and from existing research on the effectiveness of iStation in improving student performance.

Survey of Colleagues

To begin I drafted a questionnaire that asked teachers how they use the data and to what extent they used it. During some informal revision, it became clear that the teachers were wary of the formality of the questionnaire and putting anything in writing, which is an indication of the climate of fear testing and evaluations based on test scores has created and hopefully not specific to me. Instead I decided to have informal conversations with colleagues. I was able to talk to 13 teachers at 3 different schools, all of whom administered iStation. Seven administered iStation three times a year, while 6 administered iStation once a month (or more frequently) and had kids use the instructional components 30 minutes a week for students in Tier 1 and 60 and 90 minutes per week for Tier 2 and 3 students.

I gathered information informally overtime through casual conversations, so my data is highly qualitative, but meaningful nonetheless. Because it was not a formal questionnaire and happened over time, the questions or prompts were not standard but fall into general categories about their feel for iStation, what they use to gain knowledge of students' strengths and areas of need, and if their students were showing growth.

How do you feel about iStation?

I'd start conversations with coworkers with a simple question. Invariably teachers would answer with something that leaned toward a negative feeling toward iStation. "Ugh, don't ask." or "We're done, yay!" or "Already?!" Every initial answer I got expressed frustration or dislike for the test and or the frequency at which it was administered. For some this was the only response without more prompting or questioning from me, others softened and followed up by saying things that indicated relief that it was over or would be over quickly or that their students did okay or well this time around. Still some continued to rail against the waste of time and money this assessment was costing us. Two teachers expressed their students' feelings. One said, "My kids hate it. They just click through to get it over with." The other said, "My kids were all, "Do we have to?" One teacher elaborated. She said that when they first started the kids liked it. They saw it as a fun way to take a test. She said she thought the kids approached it like a video game, but that now that it had lost its novelty and especially since the school added the instruction piece, the kids had become very resistant to it.

What do you use to determine reading level or what ELA standards need to be taught, re-taught, practiced?

This question was easy. Most educators are happy to talk about and share successful strategies, including assessment strategies. Nine of the 13 freely shared that they use the DRA2 or Scholastic's Next Step Guided Reading Assessment or some variation or modification of similar guided reading style running record and comprehension questionnaire to assess students. Two said they used iStation and 2 did not say. The nine who used a one-on-one assessment either had more than 8 years of experience or said their mentor teacher or grade level team shared the assessment with them. The 4 who did not use a one-on-one assessment had fewer than 3 years of experience. This may or may not be relevant, but it is interesting. Clearly a next step would be to look at instruction in the 2 types of classes.

Are your students showing growth in reading or ELA?

This was by far the most difficult information to analyze. Comments varied greatly. Some teachers said yes, others dismissed the question again showing their dislike for the program. But, 2 teachers shared their concern with the program. They said that their students were making great gains initially then leveled off and had been stagnant. They were specifically concerned that the novelty of the program had worn off the students no longer cared or even liked to work on iSation. Eight teachers said their students were more or less improving in iSation, but that it did not seem to translate to class work and was not evident in Treasures assessments in fluency or comprehension.

Review of Literature

My attempt to collect valid research was futile. The vast majority of iStation research is published by the company itself, making the reliability questionable (2017). The company boasts effectiveness and student engagement and features quite a collection of studies citing its effectiveness, however the authors are not independent but various leadership personnel at iStation researching out of a private university.

In addition to links to the company, an internet search for iStation will result in links to schools and districts as well as links to investment news websites such as Marketwired (2017). These links are not for educators or to share success in the way we think of success but rather business success, celebratory announcements of states or districts adopting the program. This translates to investment opportunities. iStation's Chairman and CEO is super experienced in everything but education. He is an entrepreneur. He has been in banking, oil, gas, media, and real estate. This information seems suspect.

An educator from Houston Independent School District (HISD) authored one of only two seemingly outside studies I was able to find. Olaizola (2013) cites research that shows iSation to be a reliable indicator of student reading levels, but continues to explore what was discovered to be a problem with student engagement and teacher use for instructional decision making in the Houston Independent School District. First the research cited that suggesting iStation's effectiveness came directly from iStation's website as do other assertions of reliability and so the evidence should be interpreted and used knowing there is a possibility of a conflict of interest. But what this article offered was qualitative data about student and teacher use. Olaizola observed that mandatory iStation time was being met in a computer lab to get everyone done and teachers were not monitoring students. Olaizola further suggested that this "instructional time" may better be spent on instructional practices that have already been proven, rather than trying to make iStation work.

The other study provides limited data that suggests iStation would be effective if teachers were properly trained and used it appropriately (2015). Marin's research showed that students who used iStation scored better on STAAR (State of Texas Assessments of Academic Readiness, but acknowledges that other factors should be explored and notes that the results are limited to one particular school.

Recommendations

Full disclaimer, my goal as I decided to look into this issue was to eliminate the iStation mandate, or at least get justification for my dislike for it. I have not found the information iStation generates to useful and certainly no better at determining ELA and reading next steps for my students, yet I felt like an extraordinary amount time during staff meetings, PLCs, and grade level meetings were spent "analyzing iStation data." Analyzing sounds like we were doing something worthwhile, something professional. We were not. We were listening to school and state leaders rank students and teachers. Then we were given "magic tricks" to raise our scores. Advice (and mandates) like use high frequency word walls, word sorts, and vocabulary games; nothing enlightening, nothing we haven't already been doing. It was offensive!

They did not need to go into the classroom, because the data showed that clearly we were not teaching high frequency words or vocabulary otherwise our scores would show it.

While there are a number of different purposes for assessment, for classroom educators that purpose will always be to help meet the needs of the students sitting right in front of them on a daily basis. The classroom educator does not spend much of time comparing one student to another, much less groups of students across a district, state, or nation. With that primary focus they are always going to use the assessment that gives them the best data for their group of students, their curriculum, their style of teaching. So, for some that may mean that the mandated assessment meets their professional needs and the students' needs, for others, I argue most others, that means they will administer additional assessments that are more in line with their particular needs and students in addition to the mandated assessments. This seems like a waste of resources both money and time, and quite frankly a distraction, another search for that magic bullet that will solve public education's woes. As far as next steps go, I think now the question is "How does standardized assessment data improve collective performance?" If we can answer that question with actionable evidence then continued standardized assessment should remain. If however, the data is producing numbers for the sake of numbers without any direction for states, districts, and schools other than "you better improve" they should be eliminated.

In my search for information about the effectiveness of iStation, I found the boasts of iStation and really just the assessment and instructional format to be troubling. There were photographs of "engaged students" showing students sitting all by themselves with a table. It bragged about employing Disney animators. It is all one on one screen time. Brain research is clear, learning happens in relationships. Is a relationship with a computer a relationship? And if so does that learning transfer to interactions with people. Can the "growth" demonstrated in the human-computer setting be duplicated in human-human setting? If so, what are the implications for all schools? If not, what are the implications for those students for whom growth on a computer program was the only measure of learning that really counted? Is this a clever marketing ploy? Is this a successful entrepreneur's new challenge?

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