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Findings from the 2016-2017 North Carolina
K-3 Formative Assessment Process
Implementation Case Study

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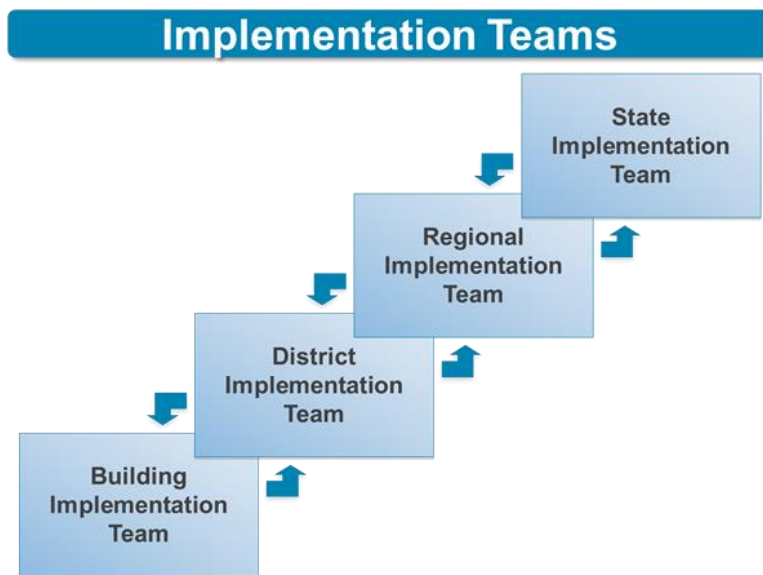
Center for Educational Measurement and Evaluation

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Introduction

The 2016-2017 academic year marks the second year of statewide implementation of the North Carolina K-3 Formative Assessment Process: Kindergarten Entry Assessment (FAP-KEA). The assessment, developed and implemented by the Office of Early Learning (OEL) at the North Carolina Department of Public Instruction, is a comprehensive formative assessment process intended to assist teachers in both identifying and supporting the unique learning needs of their young students across all five domains of early childhood development. To support implementation fidelity and sustainability, OEL adopted a multi-tiered implementation team structure from the state level through the building level, an approach backed by implementation science research from the National Implementation Research Network (NIRN). These teams worked independently and collaboratively to identify both facilitators and barriers of implementation, and they developed action plans or resources to support efforts at every level. This was accomplished through feedback protocols allowing for open communication from the state, to the region, to the district, to the building, and vice versa. The graphic below illustrates how communication and support within this teaming structure functions.



Graphic courtesy of NIRN (<http://implementation.fpg.unc.edu/book/export/html/186>)

Since the assessment's inception in 2014, OEL has put significant energy into developing the teams for this implementation approach; however, little is known about practitioner's perceptions of the effectiveness of their teams in supporting implementation efforts. To better understand practitioner perceptions of this teaming structure and identify any resources that may still be needed to support both team functions and overall implementation, a partnership of researchers from the UNC Charlotte Center for Educational Measurement and Evaluation (CEME) and Child Trends, a non-profit organization focused on improving the lives and prospects of youth through social, economic, health, and education research, conducted case studies in four North Carolina school districts. These case studies included observations of implementation team meetings and in-depth interviews with team members at every level, from the state through the building. The following report summarizes their findings.

Study Structure and Data Sources

Researchers utilized a case study approach to data collection and analysis. Four North Carolina school districts were selected as case study locations based on a number of criteria, including: their State Board of Education (SBE) region affiliation, the average income level of student families, the urbancentric locale for the district, and whether the district took part in a usability study for the 1st through 3rd grade portions of the FAP. The last criteria, usability study participation, was an important factor to consider during district selection, because usability district participants received additional support developing and sustaining their implementation teams through monthly meetings lead by OEL staff. The following table illustrates the selection criteria breakdown for the case study sample districts.

Table 1: Selection Criteria by District

<i>Sample</i>	State Board of Education Region	Average Income		Urbanicity	Usability District	
		Low	High		Yes	No
<i>District 1</i>	Region 1&3		x	Urban	x	
<i>District 2</i>	Region 2&4	x		Diverse		x
<i>District 3</i>	Region 6&8		x	Urban		x
<i>District 4</i>	Region 6&8	x		Rural	x	

It is important to note that as part of the overall state implementation architecture, regional implementation teams were developed to support their member districts. Each regional team consisted of two SBE regions and was led by the designated OEL regional consultants for each. Ideally, sample districts would be included from each of these regional teams in order to understand the full communication and feedback processes from the state through to the building; however, scheduling conflicts during the course of the study necessitated the removal of the sample district initially selected from SBE regions 5&7. While this leaves one area of the state underrepresented, the final sample was well-balanced in terms of the overall selection criteria.

During data collection, researchers divided into two groups. The first performed implementation team meeting observations and member interviews at the state and regional levels. The second performed the same tasks at the district and building levels. Meeting observers recorded qualitative notes, and interviewers utilized similar semi-structured interview protocol for all interviews. Meeting observations afforded researchers the opportunity to record the unique team makeup, dynamics, and procedures for each implementation team and provided context to understand feedback provided during the individual team member interviews. In total, researchers conducted 8 implementation team meeting observations: 1 state implementation

design team (SIDT) meeting, 3 regional implementation team (RIT) meetings, and 4 district implementation team (DIT) meetings. Building level implementation teams were not yet developed in any of the sample districts, therefore there were no observations at the building level. Interviews were conducted with 30 individual implementation team members, 5 SIDT members, 16 RIT members, 4 DIT members, and 5 building level implementation leaders. Regional implementation team interviews were held with the two OEL regional consultants leading each team, as well as two additional members from each RIT. To avoid the potential for overrepresentation at the regional level during analysis, each of these interview pairs were aggregated and treated as a single interview.

Researchers used a grounded approach in developing a codebook for data analysis, meaning that the data itself drove the analysis rather than entering with specific hypotheses to test against the data collected. Prominent, repetitive themes were created into codes, then a Yes/No method was adopted to identify whether that theme was present in each observation and interview. Finally, a percentage was calculated by implementation level to see to what extent the coded theme was present and discussed. This method of analysis allowed for equivalently weighted comparisons across implementation levels regardless of the disparity in interview numbers between them.

Findings and Implications

The observation and interview protocols used in this study covered a wide range of topics, including: professional development, technology, implementation team structure and communication, barriers and facilitators for implementation, resources and supports, and how FAP data is used to guide instruction, among others. The breadth was purposefully broad in an effort to capture a fuller picture of the complexities influencing the implementation and use of

the North Carolina K-3 Formative Assessment Process. During analysis, however, a few specific themes emerged, each of which will be discussed individually here.

Alignment and Integration

A majority of practitioners at each implementation level recognized that the assessment is an ongoing, daily process meant to capture a whole-child perspective of student learning. They also agreed that the FAP contributes to a balanced assessment system for young children in North Carolina. One regional consultant described the benefits,

“The formative assessment has criteria to assess whole child instruction and, make real time instructional changes based on a child’s real needs in that moment. I’ve observed teachers who can do this masterfully, and their children come to school happy and engaged and they’re getting that social emotional development. Teachers are working to create an environment that’s conducive to engaging students. So many benefits that literally it’s hard to put it into words.”

This indicates that the whole-child perspective and ongoing nature of this formative process fills a gap in the current assessment landscape, as it contributes data about student development outside of literacy and mathematics.

There appears to be a disconnect between identifying this value of the FAP and applying data gleaned from the process to instruction, however. Fewer than 50% of practitioners at every implementation level discussed using FAP data for instructional planning. Furthermore, while the FAP is seen as aligned with the demands of other state mandated assessments in early childhood classrooms by practitioners at the state and regional levels, practitioners at the district and building level disagreed. In fact, they overwhelmingly viewed the FAP as not only misaligned, but often conflicting with the requirements and demands of other required assessments, such as mCLASS. For example, a regional consultant commented, “People said they feel like that assessment is at odds with our assessment – ours is developmentally appropriate and is really what K children should be doing but the other is required, monitored.

Because that assessment has “teeth” in terms of being tied to teacher’s evaluations, they put more emphasis on it.”

Table 2: Perceptions of FAP Alignment by Implementation Level

	State (n=5)	Region (n=8)	District (n=4)	Building (n=5)
<i>Contributes to a balanced assessment system</i>	80%	63%	75%	60%
<i>Is a daily, ongoing process</i>	60%	38%	100%	80%
<i>Provides a whole child perspective</i>	60%	75%	100%	100%
<i>Guides instruction</i>	40%	50%	25%	20%
<i>Aligns with other assessments (formative, summative & high-stakes)</i>	67%	88%	25%	20%

Barriers and Challenges to Implementation

Practitioners at all levels reported that a lack of administrative buy-in, continued misunderstanding of the purpose and philosophy of the FAP, and a shortage of time for professional development and FAP related instructional activities all act as barriers to implementation. Administrative buy-in was foremost on participants’ minds, with no less than 75% discussing this issue at all implementation levels. Several factors likely contributed to the perceived lack of administrative buy-in. First, practitioners noted that many of the administrators tasked with overseeing FAP implementation in their district or school lacked training and/or experience in early childhood education. One instructional coach noted “the building administrators that we have come from a place where understanding is a little limited. They have, at the district level, realized that in order to get the change needed from our principals and the acceptance of different practices in the classroom, we’ve got to educate the administrators.” This lack of exposure to early childhood educational foundations limited administrators’ ability

to understand the purpose and value of the FAP, and by extension limited their ability to support their instructional staff’s implementation efforts. Secondly, the pressures placed on administrators to meet state required end-of-year accountability goals influenced their priorities. As mentioned before, many district and school level practitioners viewed the FAP as misaligned with other mandated assessments, so administrators likely dedicated greater resources and time to support what they perceive to be higher priority instruction and assessment tasks: “If there is not support from the building administration, then it’s not perceived as a priority at the administrative level, then the teachers are not going to have it as a priority.” These priorities could also explain why a shortage of resources to support FAP activities is noted much more frequently by district and school level practitioners than by those that the state and region levels.

Table 3: Perceived Implementation Barriers by Implementation Level

	State (n=5)	Region (n=8)	District (n=4)	Building (n=5)
<i>Administrator Buy-in</i>	75%	75%	100%	100%
<i>Understanding the philosophy, value, or process</i>	75%	50%	100%	100%
<i>Time</i>	75%	50%	75%	60%
<i>Resources</i>	25%	13%	75%	60%

Addressing Barriers to Implementation

Practitioners utilized a number of different strategies to overcome implementation challenges, many of which involved leveraging the strengths and abilities of their implementation teams. For instance, district and building level practitioners focused on developing strong, knowledgeable leaders for their teams. These leaders spearheaded implementation efforts by rallying support and resources so that their teams could address barriers quickly if they arose. District and school level practitioners also put significant effort

into building strong relationships among team members and between the team and other stakeholders within their district/school. These relationships included those internal to a single team, as well as those between teams (i.e. between the DIT and BIT, or between two BITs), or between a team and an individual or group in their district/school with decision making authority. Some teams went so far as to network with the DIT or BITs in neighboring districts to leverage their knowledge, experience, or capacities. Regional consultants reported tailoring the supports provided to districts to meet their unique needs, “All of our districts have unique needs and unique cultures. The ability to build relationships, trust, rapport, and professionalism, and, as a result, we’re able to have impact.”

Practitioners at all levels agreed that providing professional development (PD) was a preferred method of overcoming implementation barriers. Implementation teams played an important role in providing professional development to their administrators and instructional staff by identifying PD topic areas, developing PD materials, scheduling PD workshops or presentations, and administering PD sessions.

Table 4: Preferred Method to Address Implementation Barriers by Implementation Level

	State (n=5)	Region (n=8)	District (n=4)	Building (n=5)
<i>Building Strong Leaders</i>	50%	29%	50%	80%
<i>Building Strong Relationships</i>	0%	29%	75%	80%
<i>Professional Development</i>	75%	86%	75%	100%

Ongoing Professional Development

Practitioners at all levels agreed that continued professional development should occur with some regularity to ensure the success and sustainability of the FAP; however, their opinions differed in how often PD should be offered. State and regional practitioners preferred PD to

happen on an ongoing, daily, or weekly basis, while district and school level practitioners preferred PD sessions to occur every few weeks, to every few months.

Table 5: Preferred Professional Development Frequency by Implementation Level

	State (n=5)	Region (n=8)	District (n=4)	Building (n=5)
<i>Ongoing Daily or Weekly</i>	50%	80%	0%	0%
<i>Every Few Weeks or Months</i>	50%	20%	100%	100%

This difference in preferred PD frequency is potentially due to a difference in the conceptualization of what constitutes professional development. State and regional practitioners referred to PD in a more general sense, including discussing FAP related activities in mentoring sessions and in grade level or PLC planning meetings:

“Ideally, a district would have a team that developed a comprehensive professional development plan that includes both training and coaching. The training would include practices that have research-supported high outcomes; training methods that yield a better chance of the practice being used by the teacher. The district would also gather information about how effective the training/coaching is so they can improve upon that to better support teachers.”

District and school level practitioners, however, may have defined professional development as a separate event of some type, whether a short meeting dedicated specifically to discussing the FAP or a half- or full-day training workshop. This could account for why a majority of state and regional practitioners suggested a coaching model as a preferred PD delivery method, while 0% of district and school practitioners mentioned that method. District and school practitioners simply may not consider mentoring/coaching as professional development since it is relatively informal.

Regardless of the frequency of the PD sessions, practitioners at all levels agreed that any ongoing training should be provided in a face-to-face setting by a district leader or experienced teacher, and that the PD should be individualized by audience (i.e. administrator specific, teacher specific, etc.). District and school practitioners most particularly preferred a hands-on

environment that offered opportunities to interact with the assessment technology and/or a demonstration classroom environment with instructional materials at the ready. One teacher explained “I really liked [that] we had workstations in our training sessions. We had a workstation on appropriate activities, one on the philosophy behind it, and one on the interconnectedness and the integration. By doing all these workstations at each of our PD sessions, we got to kind of get a feel for how other schools had accepted it, and a better understanding of the fundamentals from different perspectives.” Examining these preferred PD methods indicates that district and school level practitioners might be interested in the coaching model approach suggested by the state and region level practitioners; however, they may not have discussed it directly during interviews because they defined PD as something more formal. Preferred PD topics by all implementation groups included: early childhood development, formative assessment process and philosophy, applying FAP data to instructional planning, and building the appropriate classroom environment to conduct the FAP.

Table 6: Preferred Ongoing Professional Development Characteristics by Implementation Level

		State (n=5)	Region (n=8)	District (n=4)	Building (n=5)
<i>PD Method</i>	<i>Hands-on Workshop</i>	0%	14%	75%	60%
	<i>Provided by District Leader</i>	80%	86%	75%	100%
	<i>Provided by Experienced Teacher</i>	60%	29%	25%	60%
	<i>Individualized for Audience</i>	40%	71%	50%	100%
<i>PD Topic</i>	<i>Early Childhood Development</i>	25%	50%	75%	100%
	<i>Formative Assessment Foundations and Philosophy</i>	75%	33%	75%	80%
	<i>Applying FAP Data to Instruction</i>	75%	60%	100%	100%
	<i>Building Classroom Environment</i>	50%	33%	50%	60%

Resources and Supports

The most requested resources from all implementation levels were reference materials explaining formative assessment in general and the NC K-3 FAP specifically. The majority also reported a need for continued professional development for both administrators and teachers. District and school practitioners requested additional time, funds, and staff to support FAP activities, as well as some direction for the NC Department of Public Instruction about their overall vision for early childhood instruction and assessment. More specifically, they requested a guide to better understand how the FAP fits into the larger instructional landscape in order to reconcile perceived misalignment with the other assessments and curricula they are currently required to conduct.

Table 7: Requested Resources and Supports by Implementation Level

	State (n=5)	Region (n=8)	District (n=4)	Building (n=5)
<i>Formative Assessment References</i>	40%	71%	50%	80%
<i>Teacher PD</i>	40%	43%	50%	60%
<i>Administrator PD</i>	40%	14%	75%	100%
<i>Additional Time, Funds, or Staff</i>	0%	29%	75%	60%
<i>Direction about FAP Vision from DPI</i>	20%	14%	100%	80%

Conclusion

The multi-level implementation team approach utilized by the Office of Early Learning has positively influenced the initial implementation of the North Carolina K-3 Formative Assessment Process. The findings suggest that teams that build strong leaders and relationships among their members work effectively to support implementation through efficient, consistent communication, feedback, and decision-making. Implementation teams also work diligently to

develop and deliver professional development opportunities to the staff they support in an effort to improve implementation fidelity.

While these teams form a solid foundation for implementation efforts to develop and expand, there are areas for improvement. First, OEL might consider how to improve administrative buy-in and engagement. Across implementation teams, the lack of buy-in from administrators posed a challenge to successful implementation. Second, the lack of clarity around instructional priorities for early childhood classrooms from the North Carolina Department of Public Instruction must be reconciled for practitioners in order for them to both comprehend and buy-into the value of this formative assessment process. This issue is clearly illustrated in the following interview exchange with an administrator tasked with directing FAP implementation in her district:

District Administrator: “I think there is this sort of ambiguity about what our focus needs to be. Is it whole child and developmental, or is it all about the academics? When we have two seemingly different asks, different pressures and priorities, which is most important and how do we balance that?”

Interviewer: “How do you address that ambiguity, that haziness they have about these ‘seemingly different asks?’ It seems like you’re providing good information, but still some dots aren’t connecting for them.”

District Administrator: “I think we aren’t connecting them well, because they aren’t connected well for us. Frankly, I have these questions myself.”

Without a unifying vision, administrators may continue to prioritize other assessments and instructional practices they view as more important to the overall performance of their schools, teachers, and students. A strong, clear message from the state passed down through the communication frameworks already in place between the implementation team levels, could go a long way in assisting regional, district, and school level implementers facing administrative push-back and lack of buy-in in their respective areas.

Appendix A: Aggregated Interview Protocols and Associated Research Questions

Overall Question: What resources and/or supports are seen as needed at every implementation level to support the assessment implementation process and using it to guide instruction?

Grounding Questions

- What is your overall impression of the NC K-3 FAP: KEA?
- In your own words, what is the purpose of the assessment process?
- How do you see this assessment fitting into the overall assessment picture within the state/region/district/school?
- How has implementation of this assessment process affected other activities in the state/region/district/school?

Professional Development

Research question: What was the nature and quality of the professional development provided at each implementation level?

- What elements of your PD do you think were the most helpful/beneficial?
- What areas of your PD should be revised?
- What else would be helpful to include in the training that would better prepare you to support the use of the assessment in the state/region/district/school?
- To your knowledge, does the state/region/district/school have an ongoing PD plan for continued staff development around the NC K-3:KEA?
 - If YES,
 - What is included in this ongoing PD plan?
 - Who is involved in this continued PD (i.e. who are the trainers, and who are the trainees)?
 - How were the topics of this ongoing PD selected?
 - If NO,
 - Do you feel you or your peers would benefit from continued PD?
 - What areas/topics of PD do you feel would be the most beneficial to assist you in supporting your team in implementing this assessment?
 - What barriers do you feel exist that prevent the state/region/district/school from providing this continued PD?

Resources and Supports

Research question: What other supports beyond professional development are needed to implement the assessment and support its use in guiding instruction?

- Does the state/region/district/school have a system/process in place for communicating information about the assessment process or gathering feedback regarding the assessment and its implementation from stakeholders?
 - If YES,
 - Please describe this system/process.
 - How effective is this system in communicating timely information about the assessment to you and your team?
 - How effective is this system in affecting needed change to the assessment process and its implementation based on your team's feedback?

- If NO,
 - How would the creation of such a process affect implementation in the state/region/district/school?
- What resources/supports were provided to you to assist you in supporting implementation in the state/region/district/school?
 - What is the most beneficial/helpful resource or support you received?
 - Why?
 - What additional resources/supports do you feel are necessary to support successful implementation that are not currently available to you?
 - Why?
- What resources/supports did your team provide to practitioners in the region/district/school(s) you support to assist them with implementing the assessment?
 - In your opinion, how effective have those resources/supports been?
 - What additional resources/supports do you feel would benefit the practitioners you support? -Or- Have you and your team had any specific requests for additional resources/supports to assist implementation from those you support?
- Overall, how did the support you received from the state/region/district to complete this assessment compare to the support you received to implement other assessments or initiatives during the year?

Barriers and Facilitators for Implementation

Research question: What state/region/district/school/classroom conditions serve as barriers or facilitators in implementing the formative assessment and using it to guide instruction?

- What is your impression of how well implementation is going in the state/region/district/school thus far?
 - What have been the strongest facilitators for your team in implementing the assessment?
 - What barriers have your team encountered while implementing this assessment process?
 - How have these barriers been addressed? What changes, if any, did you make to remove these barriers?
 - Have you reviewed state/district/school policies and programs to see what might be preventing schools from using the assessment well?
 - If YES: What barriers exist? How do you plan to address it?
 - If NO: Are you aware of barriers in district policies and programs that prevent schools from using the assessment well?
- How do you feel implementation in your region/district/school compares with implementation as a whole in the state/region/district?
- What unique contexts/circumstances have affected implementation in the state/region/district/school?
- How has the NC K-3 FAP been used to guide instruction in your district/school?

Technology¹

Research question: In what ways does technology facilitate or serve as a barrier to implement the assessment and use it to guide instruction?

- How, if at all, have you used the following? (If they haven't used it: What is the purpose of the following?)
 - Technology platform
 - Mobile evidence collection app
- Have you extracted district, school, teacher, class, and/or student data from PowerSchool and loaded it into the online assessment platform?
 - If NO: Would you know how to do this if you needed to?
- Have any practitioners you support asked you about how to use the technology (e.g., online platform, data from the assessment, electronic devices)
 - If YES: Did you refer to the Supports and Resources?
 - If NO: Where would you try to find the information to support practitioners?
- Does your district/school have a dedicated technology specialist?
 - If YES, how has this specialist been involved in the assessment implementation process?
- How successfully have the practitioners you support integrated the assessment platform into their assessment routines?
 - What, if any, barriers have existed during the technology integration process?
 - How have these barriers been addressed?

Final Questions

- What challenges do you face in your unique role supporting the implementation of the assessment?
 - How have you or might you address these challenges?
- What additional thoughts do you have about the NC K-3 FAP or its implementation that we have not covered? Precluded

¹Technology questions were included in an interview only when time permitted in the participant's schedule.