Teachers' perspectives on the Kindergarten Readiness Assessment in year 2:
Easier to administer but what role can it play in instruction?

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EXECUTIVE SUMMARY

In this white paper, we present the results of a survey completed by teachers from across Ohio concerning their perceptions of Ohio's Kindergarten Readiness Assessment (KRA). We examined teachers' perceptions during year 2 of KRA implementation and compared those results to findings from a similar survey completed in year 1 of the assessment implementation. Over 3,000 Ohio public school kindergarten teachers were invited to complete the survey; of which 841 responded. In year 2, teachers reported that administering the KRA was easier, compared to year 1. However, they expressed concerns that the assessment took too long to administer, distracted from creating a classroom community, and decreased instructional time. Similar to findings from year 1, teachers reported that the assessment was not useful for guiding instruction or otherwise benefiting students; yet, teachers did report an increase in using the KRA to identify students at risk for later academic problems. In contrast to year 1, teachers seemed to better understand the purposes of the assessment although there were still some remaining misconceptions. Overall, despite some changes in perceptions, teachers continued to express concerns with the KRA's implementation and remained unclear as to its role in improving instruction or outcomes for students.

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Recommendations

For Policymakers

- Provide training as to the purposes and benefits of the KRA, in terms of how acquiring baseline/screening data can inform instruction for students;

- Continue to consider new and innovative ways to ease the administrative burden associated with the KRA, including continuing to shorten the administration time;

For Practitioners

- Seek professional development opportunities that assist them in using KRA results along with other assessment data to plan instruction and better meet students' learning needs;

- Gain a better understanding of how data from the KRA fits into beginning of the year activities and with other assessment systems;

For Researchers

- Develop and evaluate training that can help kindergarten teachers use baseline and screening data to guide instructional decision making;

- Evaluate ongoing versions of the KRA to ensure that it meets intended purposes, including accurately portraying students' kindergarten-entry skills and identifying those at risk for learning difficulties.

Introduction

The use of and attention to kindergarten readiness assessments (KRAs) has increased nationally. To date, more than 33 states require the use of formal KRAs to provide a snapshot of students' skills at kindergarten entry (U.S. Department of Education [DE] and U.S. Department of Health and Human Services [DHHS], 2014).

Broadly defined, kindergarten readiness comprises those skills that students must develop as they enter their first formal year of schooling (Meisels 1998; Snow, 2006). These include foundational skills for literacy, numeracy, and social competence that predict long-term academic achievement (Claessens et al., 2009; Duncan et al., 2007). The current focus on assessing kindergarten readiness skills is grounded in research evidence that shows data-based decision making can improve teaching and learning for students (Connor et al., 2009); and that using these data early on can have lasting effects on students' outcomes (Datnow, Park, & Wohlstetter, 2007). Teachers who have access to data concerning the readiness skills of their students at the beginning of kindergarten can use this to inform their instruction. Thus, KRAs can help teachers evaluate what students already know and plan for developing key skills in young students.

In the 2014-2015 school year, the state of Ohio introduced a new KRA, developed in collaboration with the state of Maryland to fulfill conditions of a federal Race to the Top-Early Learning Challenge grant. The purpose of the new KRA, as explicitly state by the Ohio Department of Education (ODE), was to allow teachers to measure a student's readiness for kindergarten learning expectations (ODE, 2016a). This included providing baseline data about students for teachers to use in planning instruction across a variety of content domains. Additionally, at the state level, KRA data was intended to better understand the student population entering kindergarten, as well as assisting in efforts to close the school readiness gap, and documenting the results of these efforts to close such gaps (U.S. DE & U.S. DHHS, 2014). Figure 1 presents information about the domains and skills assessed by the Ohio KRA.

DOMAIN	SAMPLE SKILL
Language and Literacy	→ Letter Recognition
Mathematics	→ Sorting groups of objects
Physical Development and Well-Being	→ Large muscle coordination
Social Foundations	→ Persist in tasks and rule following

∧ Figure 1

Examples of the Ohio Kindergarten Readiness Skills by Domains targeted in the KRA. (ODE, 2016)

As the KRA was newly implemented in the 2014-2015 school year, in the spring of 2015, we conducted a survey of 150 Franklin county teachers and principals about their experiences with the KRA during year one of implementation (Schachter, Strang, & Piasta, 2015). We believed that understanding the perspectives of these stakeholders was critically important, as teachers were responsible for both administering the assessment and using the data to inform instruction with the support of their principals. In this study we found that participants perceived the administration of the KRA as burdensome and felt that it took away too much time from other important instructional activities. In particular, participants found both the administration materials and the online data entry portal problematic.

Additionally, teachers and principals seemed to be unclear as to the purpose of the KRA, with many thinking that the assessment was intended to identify students who were "ready" for kindergarten or to evaluate preschool programing. Finally, and perhaps most importantly, teachers' use of the KRA to inform instruction was limited: Only 12% of teachers said that the KRA was beneficial to them because it informed their instruction.

Arguably, these responses could have been due to the lack of familiarity with the new KRA and the adjustment period for transitioning to the new assessment. Indeed, evidence suggests that teachers might perceive the KRA differently in year two of administration, since it has been shown that test administration time decreases as teacher become more familiar with it (Jacobs, Gregory, Hoppey, Yendol-Hoppey, 2009). Additionally, teachers' data-use competency improves as they continue to receive support in this area (Roehrig, Duggar, Moats, Glover, & Mincey, 2008). Thus, it could be that some of these responses were due to first-year administration issues.

In addition, the ODE made several changes to the KRA based on feedback from multiple sources after year one of implementation (ODE, 2015). This included reducing the number of overall items (from 63 to 50) and increasing the number of items that could be administered on an iPad (from 12 to 17). ODE also promised to make the process for accessing data easier and faster for teachers. Finally, the guidelines for KRA use were changed to meet the reading diagnostic assessment requirement of the Third Grade Reading Guarantee (ODE, 2016b). These adjustments also may have changed teachers' experiences with and understandings of the KRA in year two of implementation (2015-2016 school year).

Study Aim

In this study, we surveyed kindergarten teachers across Ohio to examine their perceptions of the KRA during year two of implementation (Y2; 2015-2016). We also examined whether and how perceptions changed from year one of implementation (Y1; 2014-2015). Based on our findings from the Y1 survey, we focused on teachers' perceptions of: administrating the KRA, its benefits and usefulness for instruction, and purpose.

Method

Participants

We invited 3,113 kindergarten teachers working in Ohio public elementary schools to participate in an online survey about their experiences with the KRA. The final sample represented all of the major cities as well as most of the school districts within the state of Ohio. Within the six-week study period, 841 kindergarten teachers (27% of invitees) responded to the survey, a rate typical for online surveys (Shih & Fan, 2009). On average, these teachers had 15 years of teaching experience. All administered the KRA in Y2, and 91% had administered the KRA in Y1. Teachers participating in the survey came from a range of school districts (13% urban, 30% suburban, 32% small town, 25% rural); this geographic distribution is representative of the state as a whole.

Data Collection and Analysis

The 841 participating teachers completed an online survey with 25 multiple/fixed-choice items and 6 open-comment questions. The survey largely mirrored the one administered in Y1 (Schachter et al., 2015). Fixed-choice items asked about basic background characteristics (5 items), the administration process (8 items), teachers' perceived benefits of the KRA (8 items), and how teachers used KRA data in instructional decision-making (4 items). Open-comment questions asked about participants' experiences with the KRA, including a question about the purpose of the KRA. One new open-comment question asked about how participants' experiences with the KRA differed this year (Y2) as compared to the previous year (Y1). Every open-comment question was answered by approximately 90% of participants. Responses to these questions were coded for emerging themes by a trained research assistant; 15% were also coded by the first author to establish reliability, with 97% agreement between coders.

Results

Administration

As presented in Table 1, teachers reported spending a range of time administering the KRA in Y2. However, administration time was less in Y2 than in Y1. Fewer teachers needed more than 2 hours to administer the assessment to a single student [$\chi2(1, N = 985) = 12.66, p = .001$] and more were able to give the assessment in an hour or less [$\chi2(1, N = 294) = 9.51, p = .002$].

TIME SPENT ADMINISTERING	% RESPONSES Y2	% RESPONSES Y1
Up to one hour	26[1]	15[1]
1.25 – 2 hours	31	33
More than 2 hours	36[2]	48[2]

∧ Table 1
Reported KRA administration time
[1,2]Statistically significant difference between Y1 and Y2; $p < .05$

We also analyzed teachers' overall perceptions, positive or negative, of the KRA administration process. We averaged ratings on eight administrative items to derive a composite score for each teacher. These were all Likert items with a scale of 1-5, with a 5 indicating strong agreement with positive statements about KRA administration. Teachers tended to have somewhat positive perceptions in Y2, with an average of 3.87. Moreover, teachers' administration composite scores were more positive in Y2 than Y1 (MY1 = 3.27, $t(894) = 7.16, p = < .001$). When asked directly in an open-comment question about differences between Y1 and Y2, teachers almost exclusively focused on changes related to the administrative process. These improvements seemed to be related to the reduced number of items and the better technology (Table 2).

REASONS	% RESPONSES
Fewer items	27
Technology easier to use	25
Shorter administration time	22
More familiar with assessment	9
Able to give it earlier	8
Scoring was easier	8
Generally better	6
More support	3
Materials were ready/available sooner	2

∧ Table 2
Reasons and frequencies of why the KRA administration was better in Y2

Despite decreased administration time and more positive views concerning administration, 46% of Y2 teachers reported that the administration process was time-consuming in their responses to the open-comment question asking for "additional comments on the KRA." This finding was underscored in the open-comment data about differences between Y1 and Y2 in which almost one quarter of teachers (23%) reported that there were no changes in their experience with an additional 6% explicitly stating that the KRA was still time-consuming.

One teacher wrote, "The KRA is easy to understand, administer, and record... Administering the KRA is not difficult, just time-consuming!" Over one quarter (27%) of teachers reported that the KRA administration took time away from important beginning of the kindergarten year processes, and some reported that the KRA diminished overall instruction time (10%). Another teacher wrote, "Administering the KRA really took away from the time at the beginning of the year... Instead of spending time working together to create a great environment for learning I was getting kids busy with something so that I could pull students over individually or in small groups to assess them."

This concern was less frequent than in Y1 (reported by 43% of Y1 participants, compared to the 10% in Y2), which seems to be tied to fewer issues with the KRA complexity and length; suggesting that these issues, while remaining, did decrease.

Benefit and Use for Instruction

To understand the teachers' perceived benefits for instruction, we created a composite score using the eight Likert items regarding teachers' agreement with statements about the KRA's benefit. We averaged across these items; all had a possible score of 1-5 with a 5 indicating strong agreement with positive statements about benefits of the KRA. Similar to Y1, on average, teachers reported somewhat agreeing that the KRA was beneficial, (MY1 = 3.83, MY2 = 3.67, $t(894)$ = 1.16 p = .501).

However, when asked directly in an open-comment question about the benefits of the KRA to students,

only a small proportion of teachers reported some benefits of using the KRA. Similar to Y1 teachers (9%), some Y2 teachers (7%) reported that the KRA helped them to differentiate learning experiences for students. Some Y2 teachers (10%) also reported that the KRA helped to identify students at risk for later learning difficulties. No teachers reported this as a benefit in Y1. One teacher wrote, "[The KRA] Can be used to identify students who need immediate interventions." Another teacher commented, "Our district uses the KRA as a tool to identify those students who should be on a RIMP [Reading Improvement and Monitoring Plan.]."

When asked about how the KRA benefited them as teachers, 33% of participants responded that it provided them with baseline data about students; this was similar to that reported in Y1 (29%). Yet more than half of Y2 teachers responded to open-comment questions by reporting that the KRA provided no benefits to student learning (63%) or to themselves as teachers (62%).

We also created a total score of all the ways that teachers reported using the KRA to inform instruction. This represented whether teachers reported using the KRA during planning, teaching, or working with individual students across six domains targeted by the KRA (see Table 3).

		PHYSICAL/ MOTOR	LANGUAGE & LITERACY	MATH	SCIENCE	SOCIAL STUDIES	SOCIAL SKILLS
Planning	Year 2	10%	33%	30%	6%	6%	16%
	Year 1	7%	33%	26%	4%	4%	16%
Teaching	Year 2	9%	26%	24%	5%	5%	13%
	Year 1	6%	25%	18%	5%	4%	10%
Working with individual students	Year 2	13%	39%	34%	5%	5%	18%
	Year 1	11%	33%	27%	5%	4%	19%

∧ Table 3
Reported use of KRA to inform aspects of instruction in Y1 and Y2
Note. No significant differences between Y1 and Y2.

Out of a total possible score of 18, Y2 teachers averaged a score of 5.13, indicating some but rather minimal use of the KRA to inform instruction. This was not significantly different from the total score reported in Y1, (M_{Y1} = 4.10, t(821), 1.57, p = .071). Table 3 presents more specific information concerning how teachers reported using the KRA in Y1 and Y2. In general, use remained relatively stable with an increase in reported use of the KRA to work one-on-one with students in Y2. These findings are further underscored by teachers' responses to the open-comment question about how they used the KRA to inform instruction. Significantly fewer teachers in Y2 (19%), than Y1 (28%) commented that the KRA did not inform their instruction at all [χ^2(1, N = 820) = 4.836, p = .028]. Such comments were made by about one-fifth of teachers in both years. Moreover, although 24% of Y2 teachers responded that they used KRA to get a baseline of information about students, only 10% of Y2 participants reported using KRA data to guide instruction.

The lack of perceived benefits and use of the KRA to inform instruction may be related to teachers' perceptions that the information on the KRA was incomplete and did not test information they wished to know about students (19%), or that the KRA was redundant with other required assessments (17%). These same criticisms were reported at similar rates in Y1 data (23% and 12%). As one Y2 teacher commented, "The assessments were not specific enough or due to the time they were given students were not revealing enough." Another Y2 teacher wrote, "We do our own assessments for this and do not use KRA."

Purpose

When explicitly asked to comment on the purpose of the KRA, teachers gave a variety of responses (Table 4). Compared to Y1, a significantly greater percentage of Y2 teachers identified the ODE-stated purpose of obtaining baseline data about incoming students [χ^2 (2, N = 823) = 7.11, p = .008]. A few Y2 teachers also noted that a purpose of the KRA was to identify students at risk for learning difficulties. This was not reported in Y1 data. As one Y2 teacher commented, "My understanding of the KRA is that it gives you a baseline of reading, math and social skills. The assessment should be able to alert you of any child having extreme difficulty in those areas."

REPORTED PURPOSE	% RESPONSES Y2	% RESPONSES Y1
Provide baseline data*	45[1]	31[1]
Demonstrate readiness	30	37
Evaluate preschools	24[2]	40[2]
Use by the state*	13	14
Inform instruction*	8	10
Unclear	6	2
Identify students at-risk for later learning difficulties*	6	not reported
Show student growth	4	3

∧ **Table 4**
Reported purposes of the KRA by frequency in Y1 and Y2
*Reported purpose aligns with ODE intent of KRA
[1,2]Statistically significant difference; p < .01

Additional purposes of the KRA noted by Y1 and Y2 teachers (at similar rates) included collecting data for state documentation and informing instruction, both of which are aligned with ODE documentation. Fewer teachers reported that the KRA was intended to evaluate preschools in Y2; however, Y2 teachers continued to report other purposes that were not stated intents of the KRA at rates similar to Y1.

Discussion

The findings of this study continue to highlight teachers' perceptions that using the KRA does not benefit their instruction or their students.

We noted two positive changes in kindergarten teachers' perceptions of the KRA as they continued to use this state-mandated assessment. First, teachers seemed to find the KRA easier to administer in Y2 of implementation. In addition to rating their KRA administration experience more positively in Y2, fewer teachers voiced concerns regarding the length or complexity of the assessment. Also, administration time decreased, which may have led to a lower percentage of Y2 teachers indicating that the KRA displaced time typically spent on establishing classroom routines and other beginning-of-year processes. Many teachers cited improvements in technology, scoring, or other aspects that improved administration. These findings suggest that some of the administration challenges noted during initial implementation have decreased.

However, teachers still continue to perceive the KRA as time-consuming. Favorable perceptions of KRA adminsitration may require adjustments to reduce administrative time or assist teachers in integrating the KRA into typical classroom routines. These changes should be made in conjunction with psychometric evaluations of the KRA to ensure that it continues to provide valid and reliable assessments of students' kindergarten readiness skills.

Second, teachers seemed to understand more about the intended purposes of the KRA and some connected the purpose to potential benefits for students. This was most evident in teachers' understanding of the KRA as a tool for collecting baseline data about their students and identifying those students who might be at risk for learning difficulties. Both of these purposes align with state KRA documentation and can serve to benefit students. It should be noted, however, that none of the ODE's stated intents were identified by more than half of the participants. Teachers persisted in believing that the KRA served other purposes, such as evaluating preschool programming and serving as a gatekeeping mechanism to identify those students "ready" to begin kindergarten.

Together these findings suggest that teachers still did not completely understand the purpose of the KRA.

Training and documentation regarding the KRA may need to emphasize its purpose. Despite these positive changes, the findings of this study continue to highlight teachers' perceptions that using the KRA does not benefit their instruction or their students. In fact, few teachers reported using KRA data to inform their teaching. Indeed, there was no change in Y2 from Y1 in the number of teachers who reported actually using the KRA to inform instruction. Ample research evidence suggests that using assessments for data-based decision-making requires considerable time, effort, expertise, and support (Jacobs et al., 2009; Roehrig et al., 2008).

Teachers' perceptions of the KRA, and their willingness to devote time to its administration, may be contingent on the extent to which they see the assessment as a tool that improves instruction and student outcomes. Kindergarten teachers may benefit from advanced KRA trainings that emphasize how to interpret and use the assessment data. This training might address what information the KRA does and does not provide and how teachers might use results to set studentspecific learning goals, signal the need for further diagnostic assessments, or indicate students who might benefit from particular interventions. Teachers may also need training to help them better understand how the KRA fits into existing assessments systems, given that both Y1 and Y2 teachers reported that the KRA was incomplete or redundant with other assessments already in use. This may indicate a need to support teachers in integrating data from multiple assessments which will enable policymakers and practitioners to meet the goals of the KRA.

In conclusion, although teachers' perceptions and understandings of the KRA shifted in Y2 of implementation, many teachers still do not seem to be using the KRA as intended to inform practice in a meaningful way. We believe that additional training and dialogue among policymakers, practitioners, and researchers can improve the KRA to improve learning outcomes of kindergartners across the state.

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