

Hexagon Tool*: Kentucky Math Version

Name of Innovation: XYZ						
Reviewer(s): 5 Members of the IPAC familiar with this innovation's use in districts and schools						
Date Submitted: February 23, 2015						
Usability Factor	Questions	Yes	No	SW	DK	Notes
A. Need	1. Was an analysis of data (e.g., student outcome) conducted to identify specific area of need(s)?	X				See website with research findings.
	2. Is there evidence that the initiative addresses the specific areas of need identified?	X				
	3. Is there evidence that the initiative addresses the grade level(s) of interest?	X				6 th through 8 th grades. K-5 lessons developed by KDE Regional cooperative and field tested.
	4. Is there evidence that the initiative addresses the needs of all learners?	X				Formative assessment as a process of effective teaching supports differentiation and strategies for focused instruction
	5. Does it strengthen core instruction?	X				Aimed at core instruction. Enhances core instruction due to lesson structure, there are opportunities for differentiation, and accommodations for all learners within the lesson
B. Fit with Current Initiatives	1. Does the initiative fit with other existing initiatives?	X				Aligned to common core
	2. Does the implementation and outcomes of the initiative interact with other relevant initiatives?	X				Limited initiatives, yet interacts within the state, and local district initiatives
	3. Does it fit with priorities of the state?	X				

	4. Does it fit with the states' current organizational infrastructure?	X				Aligns with state priority
	5. Is the initiative (e.g. content, assessments) aligned with State Learning Standards?	X				No comment needed, see B1
	6. Does it fit with the states' current pedagogical views of math instruction?	X				No comment needed, educators share a common philosophy for teaching math
	7. Does it empower teachers to communicate with family and community stakeholders?			X		Provides information about student learning that teachers interpret and share with parents. Can be easily created, and connect to family, home connection.
C. Resources	1. Are there resources related to the initiative readily available (e.g., manipulatives)?	X				See website with research findings.
	2. If so, what is the cost? Enter in notes section		X			Printed resources only. No purchase necessary
	3. Does the initiative require hardware or software? Use notes section to explain.		X			
	4. Are staffing resources available for this initiative?	X				Districts would need to provide professional development to the teachers. Teachers are the staffing resources.
	5. If yes, are the staff resources adequate?	X				Mathematics teachers (regular and special education)
	6. Are training resources available for this initiative (e.g. qualified staff at Regional, District, or Building levels)?	X				
	7. If yes, are training resources adequate for this initiative?			X		Scaling up plan needed. For example, there are 15 middle schools currently using the innovation. Training resources are limited
	8. Are coaching resources available for this initiative	X				Not all schools/districts have math coaching to support this innovation.

Hexagon Tool*: Kentucky Math Version

	(e.g. others at the school, District or Regional level know the innovation and have coaching skills and have time)?					
	9. Are coaching resources adequate for this initiative?			X		Developed within a district
D. Evidence	1. Are there research data available to demonstrate the effectiveness of math instructional practices (e.g. randomized trials, quasi-experimental designs)?	X				<p>No local data.</p> <p>CRESST (UCLA). See attachment Inside the Black Box, Raising Standards through Classroom Assessment. <i>Phi Delta Kappa</i> Meta-analysis of formative assessment research. Assisting Students Struggling with Mathematics: Response to Intervention (RtI) for Elementary and Middle Schools http://ies.ed.gov/ncee/wwc/PracticeGuide.aspx?sid=2 Formative assessment lessons based on research of Formative Assessment Black & Wiliam, (2000) [5 characteristics]</p> <p>Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2003) <i>Assessment for Learning: Putting it into practice</i>. Berkshire, England: Open University Press.</p> <p>Butler, D.L. & Winnie, P.H. (1995) Feedback and self-regulated learning: a theoretical synthesis. <i>Review of Educational Research</i>, 65(3), 245-281.</p> <p>Sadler, D.R. (1998) Formative assessment: revisiting the territory. <i>Assessment in Education</i>, 5(1), 77-84. <i>Effective Classroom Assessment: Linking Assessment with Instruction</i> by Catherine Garrison, Dennis Chandler, and Michael Ehringhaus is available online at www.nmsa.org and www.measuredprogress.org.</p>

	2. If so, are the differences between the experimental and control groups academically significant (e.g. effect size)?				X	
	3. If research data are not available, are there evaluation data to indicate effectiveness (e.g. pre/post data, testing results, action research)?	X				See references
	4. Do the studies (research and/or evaluation) provide data specific to effectiveness for a variety of learners (e.g., EL, SWD, low SES, gender, etc.)?		X			
	5. Do the studies (research and/or evaluation) provide data specific to effectiveness for students of diverse cultural groups?				X	If yes, provide citations or links specific to effectiveness for students of diverse cultural groups?
	6. Is there a fidelity assessment that measures teacher behavior (e.g. observation of teacher in the classroom), use of content, etc. (Are we doing what we said we would do to improve practices)?				X	If yes, provide citations, documents, or links to fidelity assessment information. If not, could one be developed?
E. Readiness for Replication (i.e., Use in	1. Is there a qualified “expert”, TA provider, purveyor who can help Districts with implementation over time and across schools (e.g.			X		Coordination of state, regional and local level resources Technical assistance is provided by independent consultant. However, there is not an “expert” per district. Probably a somewhat and not a yes for all districts. Limited access mostly due to time and personnel.

Hexagon Tool*: Kentucky Math Version

Typical School and Classroom Settings)	training, coaching methods, progress monitoring, data)?					
	2. Is this initiative currently in use in the region or state with demonstration of positive gains for students? If so, where?	X				Opportunity for Observation 6 schools provided opportunities for observation
	3. Is this initiative currently in use in region or state with demonstration of positive gains for all learners? Which students? Where?				X	
	4. Is the proposed initiative clearly defined? (e.g. what it is, for whom it is intended)?	X				Not yet, we need to be able to explain it to parents.
	5. Are the core features of the initiative identified, listed, named (e.g. key components of the intervention or practices that are required in order to be effective)?	X				http://map.mathshell.org/materials/lessons.php
	6. Is each core feature well operationalized (e.g. Teachers/staff know what to do and say in the classroom, how to prepare, how to assess progress)?	X				http://map.mathshell.org/materials/lessons.php
	7. Is there a range of material (exemplars) available that demonstrates the instructional strategies or initiative strategies related to the core features (e.g.,	X				https://vimeo.com/user20508617/videos/page:2/sort:date Teaching Channel Videos https://www.teachingchannel.org/videos?q=productive+struggle+ky

	rubrics, practice profiles, videos, audio, scenarios)?					May want to include the Shell Center site too for PD supports. http://map.mathshell.org/materials/lessons.php
	8. Is there a recommended teacher and administrator orientation and “buy-in” process? If so, explain briefly in Notes section.	X				Modifying core instruction to include assessment strategies for formative assessment.
	9. Are the processes related to teacher professional learning through training specified and ‘doable’ (e.g. staff, cost, PGES, KY Standards for Professional Learning)?	X				
	10. Are there processes related to professional learning through coaching specified (e.g. observations, reflection, and follow-up) and ‘doable’?	X				Yes, in one district. What about other cooperatives? This is a 6-year process, start small, then scale up with implementation science practices
F. District and School Capacity to Implement Well	1. Does it intentionally advance teacher content knowledge and instructional practices?	X				Yes, per teacher feedback.
	2. Does it foster and encourage teacher leadership?	X				Yes, per teacher feedback.
	3. Current grade level teaching staff have the academic content knowledge needed to use the initiative to good effect for all students?	X				If certified, or highly qualified. This varies across schools; however, if the teachers are working through the lessons for understanding – content knowledge could be reinforced or strengthened.
	4. Current grade level teaching staff have the knowledge and skills related to the instructional strategies				X	This varies across schools

Hexagon Tool*: Kentucky Math Version

	needed to meet the needs of struggling students?					
	5. Curriculum content and instructional strategy knowledge and capacity are adequate at the combined Regional and District level to support School-level implementation?	X				
	6. Are the math instructional materials copyright protected (e.g. curriculum, training material, coaching and fidelity materials)? If so, can they be modified?		X			
	7. Are the supports for learning and using the math instructional practices only available for a limited time (e.g. a time-limited grant or research study)? If so, how long?		X			
	8. Do we know if the vendors or math program developers are willing to support others in learning to train, coach, and/or assess fidelity?	X				

Hexagon Tool Scores:

See website with research findings.			
Name of Innovation: XYZ			
5 point Rating Scale: High = 5, Medium = 3, Low = 1			
	High # of votes	Medium # of votes	Low # of votes
Need	11	0	0
Fit	11	0	0
Resource Availability	11	0	0
Evidence→Effectiveness of student outcomes	0	11	0
Evidence→Research-Based Math Instructional Practices	11	0	0
Readiness for Replication	11	0	0
Capacity to Implement	11	0	0
Total Score	66 86%	11 14%	0 0%

*Hexagon Discussion and Analysis was updated based on Usability Testing in August of 2018. See this [link](#) for the latest version from the National Implementation Research Network and the Kentucky education version.

* Aligns with state priority