IMPLEMENTATIO		LIMITED	EMERGING	EFFECTIVE	Comments and Evidence
5D	Subdimensions	Little to No Evidence of Implementation of iPrep Math Program Components	Some Evidence of Implementation of iPrep Math Program Components	Strong Evidence of Implementation of iPrep Math Program Components	
		1	2	3	
(1) Classroom Environment and Culture	Use of Physical Environment; Classroom Routines and Rituals; Classroom Culture	• Tools and materials are not available. • Few routines and procedures are established to facilitate student responsibility, ownership, and independence. • Physical classroom arrangement supports teacher-directed, with some student to student interactions. (e.g., teacher rarely moves around the room to observe and confer with students). • Students have little to no access to learning hubs. (e.g., students are arranged in rows or assigned seats, student collaboration is not promoted or evidenced). • Teachers do not have access to all students (e.g., students have been divided amongst two / three	• Tools and materials are accessible but not utilizied by students to support learning. • Some routines and procedures are established to facilitate student responsibility , ownership and independence. • Physical classroom arrangement intermittently supports student-to-student interactions and teacher-to-student workshops as needed (e.g., teacher sometimes moves around the room to observe and confer with students). • Students have limited access to all learning hubs. • Teachers have limited access to all students.	• Appropriate tools and materials are accessible and used by students to support learning and independence. • Clear and consistent routines and procedures are established to facilitate student responsibility, ownership and independence. • Physical classroom arrangement allows for flexibility in accomodating each student and their learning needs and supports both student-to-student interactions and teacher-to-student workshops as needed (e.g., teacher moves around the room to observe and confer with students). • Students have access to all learning hubs and teachers have access to all students.	
(2) Purpose	Standards; Learning Targets and Teaching Points	• Teachers are not on track to complete course expectations (according to district pacing and state standards). • During instructional time, teachers have difficulty with incorporating the following: iModules, Project-Based Learning (PBL) activities, adaptive software, rigorous text, complex problem solving and instructional technology resources (e.g., the learning targets and tasks are not clearly articulated, linked to standards, embedded in instruction, nor understood by students). • Little preparation for lessons and materials. Criteria for success is not clear to students and/or no evidence that students are able to understand and apply learning in context.	• Teachers are somewhat on track to complete course expectations (according to district pacing and state standards). • During instructional time, teachers include some of the following: iModules, Project-Based Learning (PBL) activities, adaptive software, rigorous text, complex problem solving and instructional technology resources (e.g., the learning targets and tasks are clearly articulated, linked to standards, embedded in instruction, and understood by some students). • Some preparation for lessons and materials, but the criteria for success is not clear to all students and/or some evidence that students are able to understand and apply learning in context.	• Teachers are on track to complete course expectations (according to district pacing and state standards). • During instructional time, teachers maximize lesson objectives and include all of the following: iModules, Project-Based Learning (PBL) activities, adaptive software, rigorous text, complex problem solving and instructional technology resources (e.g., the learning targets and tasks are clearly articulated, linked to standards, embedded in instruction, and understood by all students). • Prepare lessons and materials in advance with attention to intervention and enrichment / advancement activities with clear criteria for success and evidence that students are able to understand	
Curriculum and Pedagogy	Curriculum	• Students spend less than 1.5 hours in a two week period on the Carnegie Learning adaptive software. •Instructional materials and tasks are not always appropriately challenging and supportive for students, aligned with the learning targets and content area standards, and are not culturally and academically relevant. •Teachers provide instruction to the learner and understands that the learner is dependent on them to support their learning (e.g., Teachers determine *how* and *what* students learn).	• Students spend 1.5 - 2.5 hours in a two week period on the Carnegie Learning adaptive software. •Most instructional materials and tasks are appropriately challenging and supportive for students, aligned with the learning targets and content area standards, and are culturally and academically relevant. •Teachers provide instruction to the learner, but supports groups of learners who are reliant on them to support their learning (e.g., Teachers determine *what* students learn, but learner is given a choice on	• Students spend 2.5 or more hours in a two week period on the Carnegie Learning adaptive software. •All instructional materials and tasks are appropriately challenging and supportive for students, aligned with the learning targets and content area standards, and are culturally and academically relevant. •Learner drives his/her learning and develops the skills to build a network of peers and teachers to guide and support their learning. (e.g., Learner is given choices on *how* and *what* they learn based on their academic needs).	
	Student Collaboration	• As students work collaboratively, they rely on frequent teacher prompting and responses to questions. • Groups / pairs focus on the completion of the task as they work together, with students showing reliance	• Students use peers as collaborators with some need for teacher direction and clarification. • Most groups / pairs focus on mathematics as they work together, with some students showing reliance on others.	• Students use peers as collaborators with little need for teacher direction and clarification. • All groups / pairs focus on mathematics as they manage their own learning, with each student taking an active role.	
	Questioning Strategies	• Teachers do not use a variety of questions. • Teachers use questions to promote primarily low order thinking. • Teachers provide little to no wait-time (e.g., questions posed in rapid succession). • Teachers use questions that focus on managing student behavior and work (e.g., Which group is ready to share a solution?).	• Teachers occasionally use questions to promote a combination of low and higher order thinking (e.g., encouraging students to clarify and extend their thinking, probe deeper, reflect, and make connections). • Teachers provide some wait-time.	• Teachers plan for and effectively use a wide variety of questions to promote higher order thinking (e.g., encouraging students to clarify and extend their thinking, probe deeper, reflect, and make connections). • Teachers use questioning strategies to assist students to reason abstractly and quantitatively. • Teachers provide appropriate wait-time.	

(3)	**Making Real-World and Mathematical Connections**	• Teachers do not or rarely connect lesson objectives to prior knowledge, real-world experiences, tools and/or technology. • Conceptual understanding of mathematics is not connected to learning objectives. • Teachers do not or rarely provide opportunities for students to connect information utilizing multiple representations in mathematics. • Teachers do not or rarely encourage students to seek and understand multiple solution methods and how they are connected. • Students are not given opportunities to make real-world connections through Project-Based Learning, Real World Complex Problems, and digital media.	• Teachers occassionally connect lesson objectives to prior knowledge, real-world experiences, tools and/or technology. • Some conceptual understanding of mathematics is connected to learning objectives. • Teachers occassionally provides opportunities for students to connect information utilizing multiple representations in mathematics. • Teachers occassionally encourage students to seek and understand multiple solution methods and how they are connected. • Students are not consistently given opportunities to make real-world connections through Project-Based Learning, Real World Complex Problems, and digital media and/or experiences are not designed to allow students to make real-world connections.	• Teachers meaningfully connect lesson objectives to prior knowledge, real-world experiences, tools and/or technology. • Conceptual understanding of mathematics is connected to learning objectives. • Teachers provide opportunities for students to meaningfully connect information utilizing multiple representations in mathematics. • Teachers require students to seek and understand multiple solution methods and how they are connected. • Students consistently make real-world connections through Project-Based Learning, Real World Complex Problems, and digital media. • Students model with mathematics. • Students look for and make use of structure. • Students look for and express regularity in repeated	
(4) Assessment for Student Learning	**Assessment; Adjustments**	• Teachers do not use tools to assess student achievement and adjust instruction accordingly (e.g., formative, summative, peer, self-assessments, etc.). • The quality and timeliness of teachers' feedback to students may be inconsistent. • Assessments are not aligned to lesson objectives or the rigor of state / district standards. • No evidence of data collection or data disaggregation .	• Teachers occasionally use a variety of tools to assess student achievement and adjust instruction accordingly (e.g., formative, summative, peer, self-assessments, etc.) • Teachers' feedback to students is timely and of high quality. • Assessments are occasionally aligned according to lesson objectives and the rigor of state / district standards. • Limited evidence of data collection and / or data	• Teachers consistently use a variety of tools to assess student achievement and adjust instruction accordingly (e.g., formative, summative, peer, self-assessments, etc.). • Teachers' feedback to students is timely and of high quality, and students make use of the feedback in their learning. • Assessments are consistently aligned according to both lesson objectives and state/district standards. • Evidence of data collection and data disaggregation.	
	Personalization	• Teachers are seldomly incorporating personalization and do not plan for data-driven, differentiated instruction. • Teachers do not serve as facilitators for students needing assistance and do not ask questions to clarify thinking, probe deeper, make connections, or prompt reflections as students work in groups or independently. • Teachers seldomly interact with students.	• Teachers limit personalization by occasionally keeping the student learning individualized and self-paced. • Data-driven, differentiated instruction is inconsistent. • Teachers do not consistently serve as facilitators for students needing assistance and asks questions to clarify thinking, probe deeper, make connections, and prompt reflections as students work in groups or independently (e.g., Teachers provide too much direction or limited interaction with students)	• Teachers maintain fidelity to personalization by keeping the student learning individualized and self-paced through data-driven, differentiated instruction (teacher-initiated workshop). • Teachers serve as facilitators for students needing assistance and asks questions to clarify thinking, probe deeper, make connections, and prompt reflections as students work in groups or independently (student-inititated workshop).	
(5) Student Engagement	**Intellectual Work; Engagement Strategies**	• Some students are actively engaged in classwork; taking full ownership of learning activities, displaying high levels of energy, willingness to ask questions and take risks (some students are passive participants or off-task). • Teachers rarely use research-based practices to promote student engagement.	• Almost all students are actively engaged in classwork; taking full ownership of learning activities, displaying high levels of energy, willingness to ask questions and take risks (few students are passive participants or off-task.) • Teachers use some research-based practices to promote student engagement.	• All students are actively engaged in classwork; taking full ownership of all learning activities, displaying high levels of energy, willingness to ask questions and take risks (no students are passive participants or off-task). • Teachers consistently use a variety of research-based practices to promote student engagement.	
	Mathematical Discourse	• Teachers initiate and drive most mathematical conversations. • Teachers prompt and guide discussions with little or no direction from students. • Acknowledgement of the right answer comes from the teachers. • Teacher-directed instruction is used for the majority of the instructional block. • Few students are able to describe their mathematical thinking or process, construct viable arguments, and critique the reasoning of others. • Few students are able to use precise mathematical vocabulary. • Students use limited or teacher-directed methods to communicate (e.g ,tables, graphs, models, diagrams, oral, written, technology). • Few students attend to precision.	• During most of the class time, students discuss mathematical concepts with each other. • Students hold each other accountable while collaborating in group work, but the teacher may prompt and guide discussions some of the time. • Determination of correctness mostly rests with students, but requires teacher validation. •Teachers are shifting to a classroom with less teacher-directed instruction, where students are beginning to communicate within whole group, small group, partner, or individual activities. • Most students are able to describe their mathematical thinking or process, construct viable arguments, and critique the reasoning of others. • Most students are able to use precise mathematical vocabulary. • Students may use a variety of methods to communicate (e.g., tables, graphs, models, diagrams, oral, written, technology). • Most students attend to precision.	• During the entire class time, students discuss mathematical concepts with each other. • Students hold each other accountable while collaborating. • Students construct viable arguments and critique the reasoning of others. • Determination of correctness rests with students. • Students are able to communicate effectively within whole group, small group, partner, or individual activities. • Students are able to describe their mathematical thinking or process, construct viable arguments, and critique the reasoning of others. • Students are able to use precise mathematical vocabulary. • Students use a variety of methods to communicate (e.g., tables, graphs, models, diagrams, oral, written, technology). • Students attend to precision.	

**The iPrep Math Implementation Fidelity Rubric (IFR) was developed in partnership betweem Miami-Dade County Public Schools and Carnegie Learning, Inc. and utilizes research provided by the University of Washington, Center for Education Leadership, "5 Dimensions of Teaching and Learning."*