MI-AMTE Position Statement
Support for *The Essential Instructional Practices in Early Mathematics*
January 26, 2023

MI-AMTE is committed to supporting both the preparation and continuing education of Michigan teachers. We are guided by the recently released Michigan Standards for the Preparation of Teachers that articulate research-based standards that promote quality mathematics teacher education in Michigan. Thus, we strongly support expanding the investment in and use of *The Essential Instructional Practices in Early Mathematics: PreKindergarten to Grade 3* (*Essential Instructional Practices*) (MAISA General Education Leadership Network Early Mathematics Task Force, 2019) as a statewide framework to promote high-quality teaching and learning of mathematics, as it aligns with the Standards for Teacher Preparation adopted statewide. Any new initiatives or movements the state might consider should be in alignment with the values and essential practices described in the *Essential Instructional Practices*.

The *Essential Instructional Practices*
The *Essential Instructional Practices* is a document developed by the Early Mathematics Task Force of the Michigan Association of Intermediate School Administrators. The purpose of the document is to focus Michigan teachers' mathematics instruction on research-based instructional practices. The research-based instructional practices described in the document promote students' mathematics achievement while laying a strong foundation for developing their abilities to enact mathematical practices (MDE, 2010) in later years.

Value of *The Essential Instructional Practices*
While there are other movements concerned with mathematics instruction, the *Essential Instructional Practices* is exceptional in multiple regards. The document takes a holistic approach, supporting the development of students' mathematical knowledge while also developing the positive mathematics identities and dispositions that research shows impact students' future math learning. It intentionally moves beyond debates grounded in false dichotomies (e.g. conceptual vs. procedural, inquiry vs. direct instruction), and it supports both the achievement and care of all children--including those whom mathematics instruction has not traditionally served well.

Research Evidence to Support our Position
The research base for *Essential Instructional Practices* is rigorous, drawing on a breadth of research that has stood the test of time. For example, over 30 years of research on children's

learning supports the use of cognitively demanding problem-solving tasks (e.g. Carpenter et al., 1989; Fennema et al., 1996). Additional current research strongly supports the approach. For example, Sinha and Kapur's (2021) rigorous meta-analysis published in one of the top educational research journals found that learning is most effective in the long term when problem solving and task exploration come before direct instruction. Mathematics learning is most effective, better retained, and transferable when problem solving and productive struggle are allowed. Further, they found that any direct instruction should include and focus on a discussion of student work and strategies used during problem solving, and not explicit step-by-step instruction.

Call to Action

We call on policymakers and educational advocates to center the values and practices in the *Essential Instructional Practices* when confronted with alternative frameworks or national trends that counter the strong, research-supported, aspirational foundation laid by this important document. We ask decision-makers to reject any frameworks or movements that are counter to the values and practices in this document for any group of students. Further, we encourage decision-makers to invest in the expansion of the initiative to build these values across grade levels to provide effective, high-quality mathematics instruction for all Michigan students.

References

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