

Procedural Fluency



A Revision for Clarity and Equity

Procedural fluency is an attainable goal for all students and every student deserves access to instruction that attends to all procedural fluency components. To support WI educators and students in realizing these beliefs, the language “fluently” has been revised to the phrase “flexibly and efficiently”.

flexibility

In a way that can use, explain, and justify multiple strategies and be adept at choosing a meaningful strategy for the computation or procedure in a problem.

efficiency

In a way that uses strategic thinking to carry out a computation or apply procedures.

accuracy

In a way that uses a strategy appropriately, supporting students in arriving at the correct answer.

2021 WI Standards for Mathematics Fluency Revisions

M.K.OA.A.5	M.2.NBT.B.5	M.6.NS.B.2	M.7.EE.B.4
M.1.OA.C.6a	M.3.NBT.A.2	M.6.NS.B.3	
M.2.OA.B.2	M.4.NBT.B.4	Fluency shapes students' mathematics identity and agency.	
M.3.OA.C.6	M.5.NBT.B.5		
M.4.OA.D.6		Equitable fluency instruction is realized through effective teaching practices.	

Flexibility, efficiency, and accuracy more specifically describe what is being called for regarding fluency. The term fluently is still useful language when talking broadly about these expectations.

Fluency has been well-defined for years by the National Research Council (NRC, 2001) and National Council of Teachers of Mathematics (NCTM, 2014).

Resources:

- WI Standards for Mathematics, 2021
- Bay-Williams and SanGiovanni, Figuring Out Fluency in Mathematics Teaching and Learning, 2021

