Unpacking a Lesson for Embedded Language Demands in Mathematics

An Analysis Tool

Prior to mining your lesson for language demands, the ELSF Resource Analyzing Content and Language Demands can provide some good background information for instructional leaders and/or teachers. This resource can be used to guide your thinking about how the lessons you are analyzing ensure intentional instruction of language in order to teach the content.

Highlight and annotate for language demands in a mathematics lesson—an analysis tool:

Language Demand	Examples In Use	Evidence from Lesson/Task
Common Language Functions • Compare/Contrast → • Sequence → • Prediction → • Summarize →	**Forulaic Expressions** • *Both have, are the same/ different because…* • *First, second, next, lastly…* • *Perhaps, it's plausible that…* • *I noticed that, in conclusion, to summarize*	
Disciplinary Language (content–specific) • Estimate→ • Numerator→ • Sum→	• *I estimated, there are approximately…* • *In my answer the numerator…* • *I noticed my sum…*	
Disciplinary Language (content–specific) • Estimate→ • Numerator→ • Sum→	• *I estimated, there are approximately…* • *In my answer the numerator…* • *I noticed my sum…*	

|

Language Demand	Examples In Use	Evidence from Lesson/Task
Tricky words/phrases (which may include disciplinary language) • Dual-meanings or words with complex structures/meanings → • Places/locations → • Prior knowledge or experience → • Cognates→	• *Factor, multiple, dividend, divisor* • *Philadelphia, Istanbul* • *Camping, borough* • *Multiplication/ multiplicación* • *Sum/suma* • *Estimation/estimación*	
Opportunities within the 4 Language Domains • Listening→ • Reading→ • Speaking→ • Writing→	• *Explicit and intentional use of language during modeling of math concepts* • *Opportunities to unpack/ deconstruct word problems for understanding* • *Group work (partnerships/ triads) to provide low-pressure practice using math language* • *Formulaic expressions/ formative assessments to support explaining student thinking around mathematical ideas*	