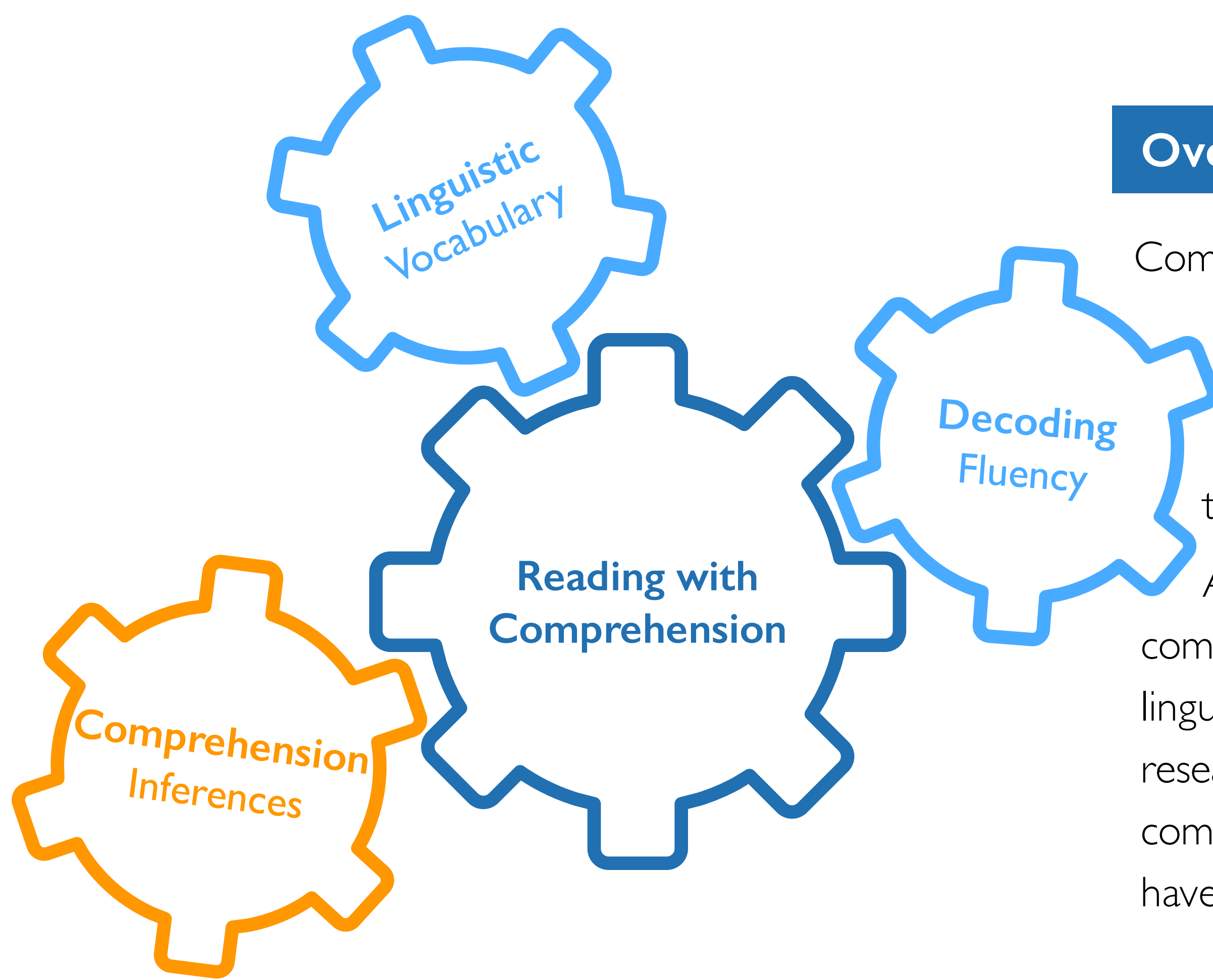


The role of comprehension ability in multimedia learning

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Overview

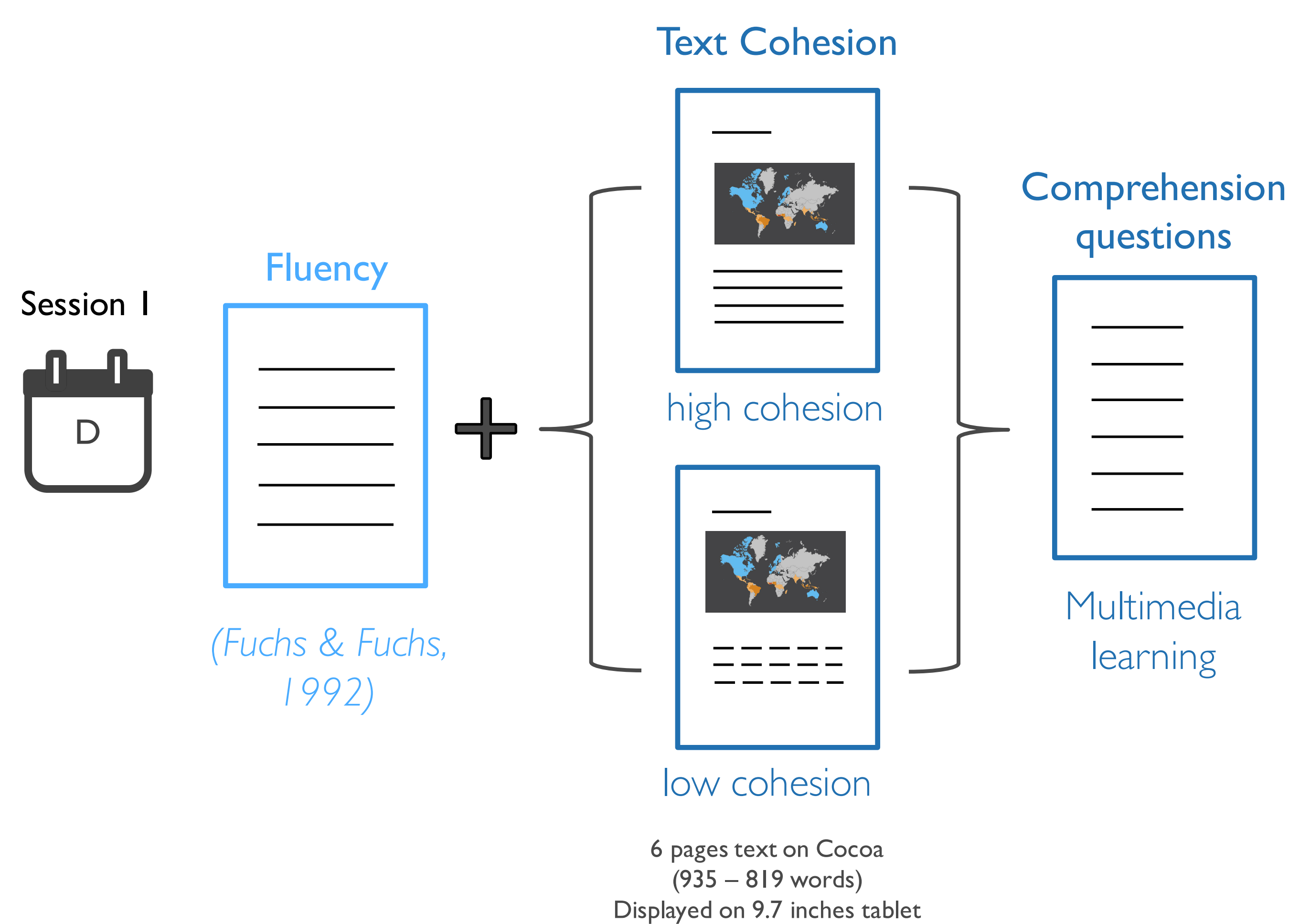
Comprehension of an instructional multimedia document presupposes that readers have the ability to decipher the text, and link together the information to form the gist of the text.

According to the *Simple View of Reading* text comprehension is achieved with decoding and linguistic skills (Hoover & Gough, 1990). However, research on **text processing** considers that deep comprehension is only achieved when readers have the ability to generate inferences (Kintsch,

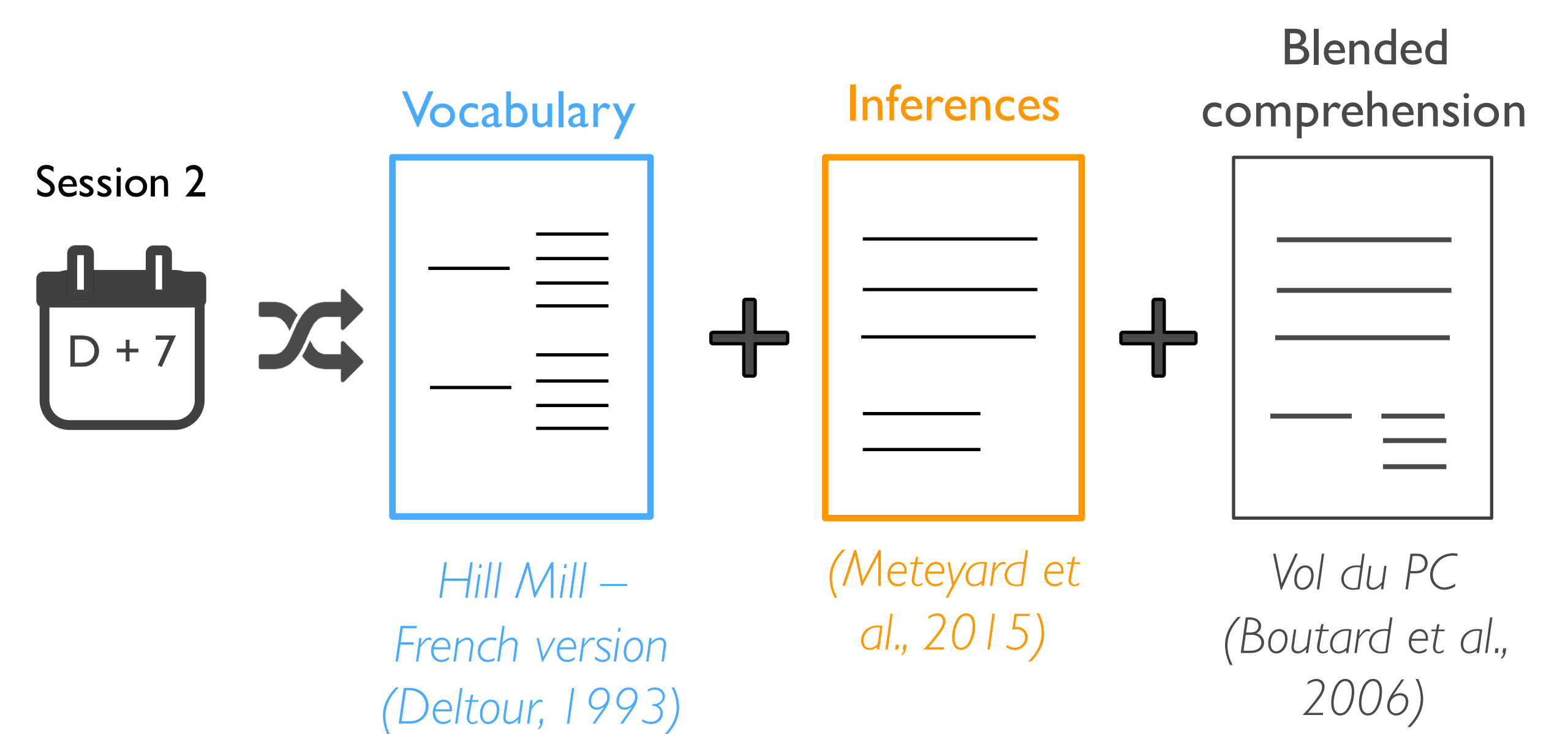
1998). In experimental settings and in classrooms, the assessment of **reading comprehension abilities** is achieved by tests that usually measure only one of those three reading skills.

But which test of reading comprehension best predicts the comprehension of a multimedia document?

Methods



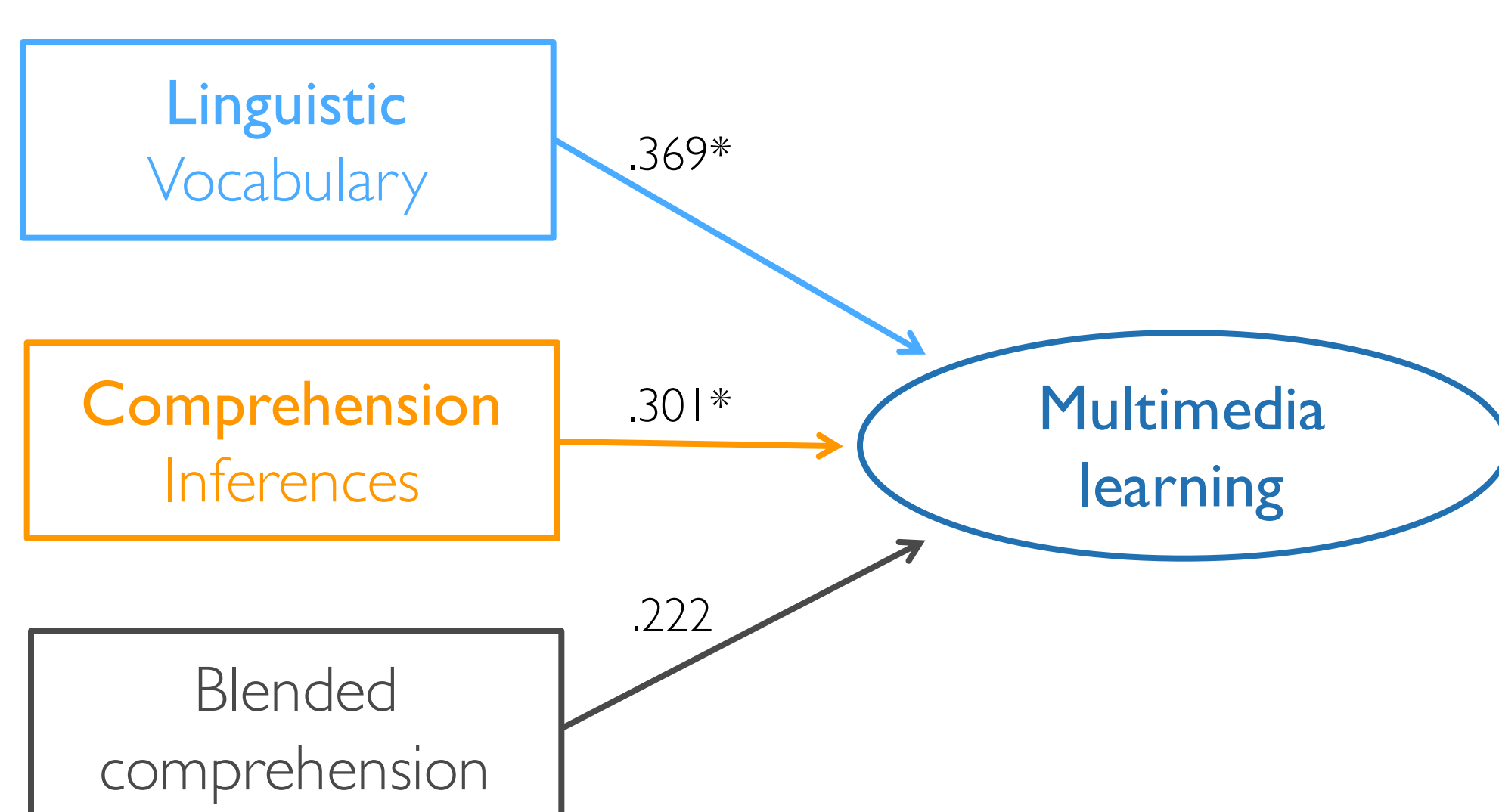
Participants : $n = 42$ students in prevocational track
mean age = 16 years and 3 month



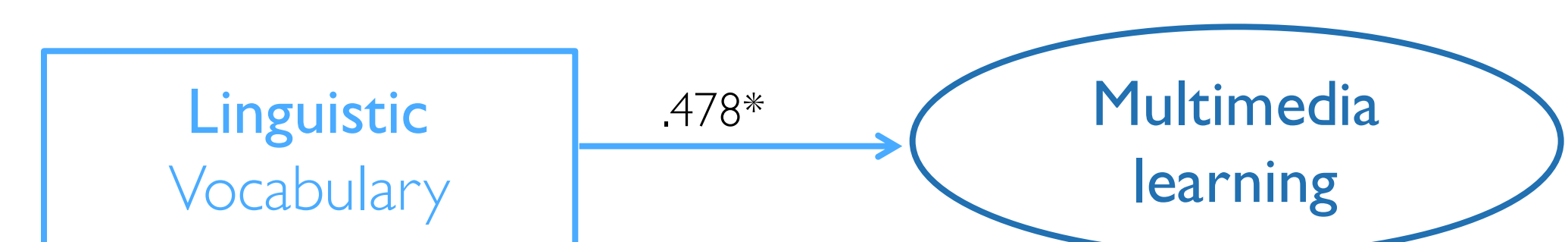
Results & Significance

	Multimedia learning		
	Regardless of cohesion	Low cohesion	High cohesion
Fluency	-.102	-.104	-.149
Vocabulary	.386 *	.478 *	.552 *
Inferences	.455 **	.341	.584 **
Blended comprehension	.479 **	.228	.730 **

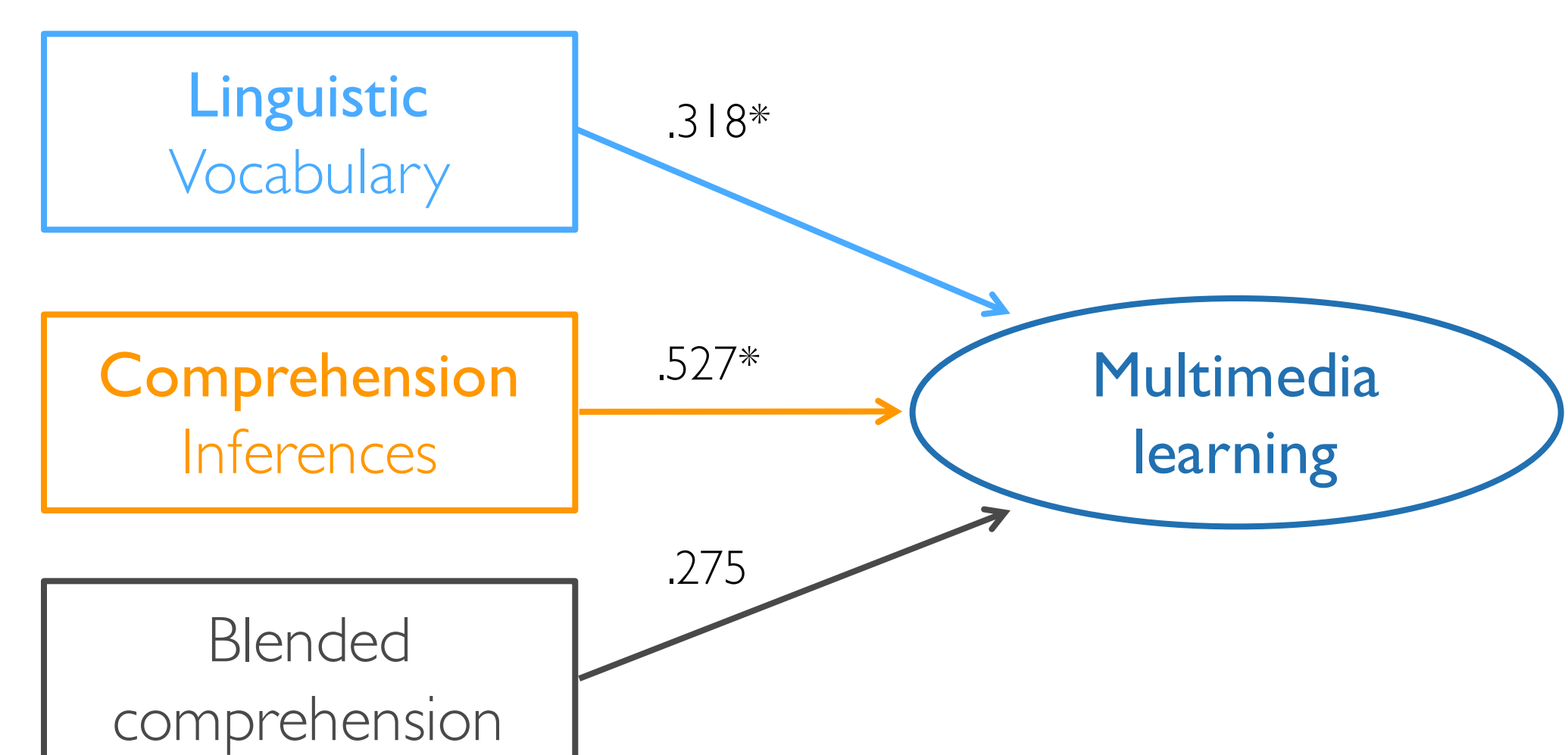
Regardless of cohesion, $R^2 = .46, F(3, 38) = 10.73, p < .001$



Low cohesion, $R^2 = .23, F(1, 21) = 6.22, p = .021$



High cohesion, $R^2 = .72, F(3, 15) = 12.94, p < .001$



These results are the first step to study the comprehension of instructional multimedia documents with text and picture, especially with struggling readers. Findings indicate that both the ability to generate inferences and vocabulary skills are the best predictors of multimedia learning.

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