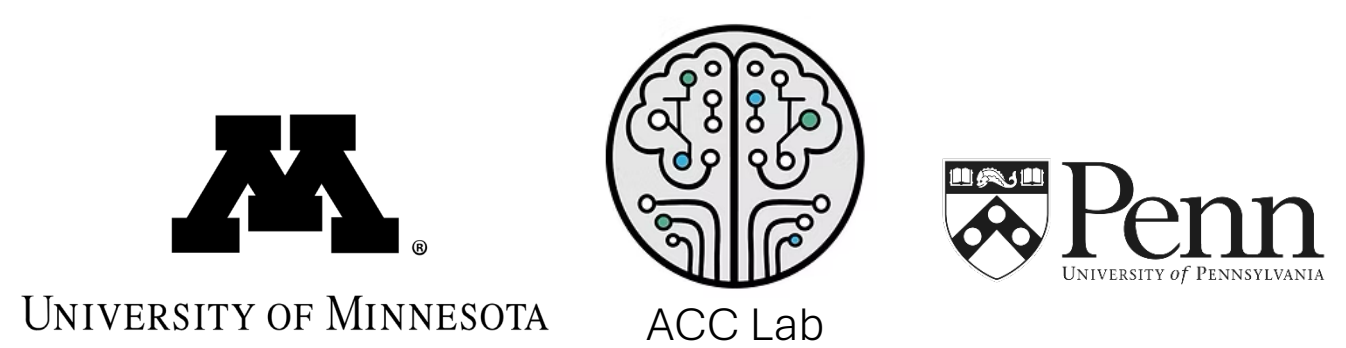


# Too Hard or Just Right? How Difficulty Affects Student Engagement

Christopher Steadman, Aaron Wong, Zhanlan Wei, Ryan S. Baker, and Caitlin Mills



## background:

Cascade model of inattention:



In text comprehension:



Difficulty = major driver of task unrelated thought (TUT) while learning

## questions:

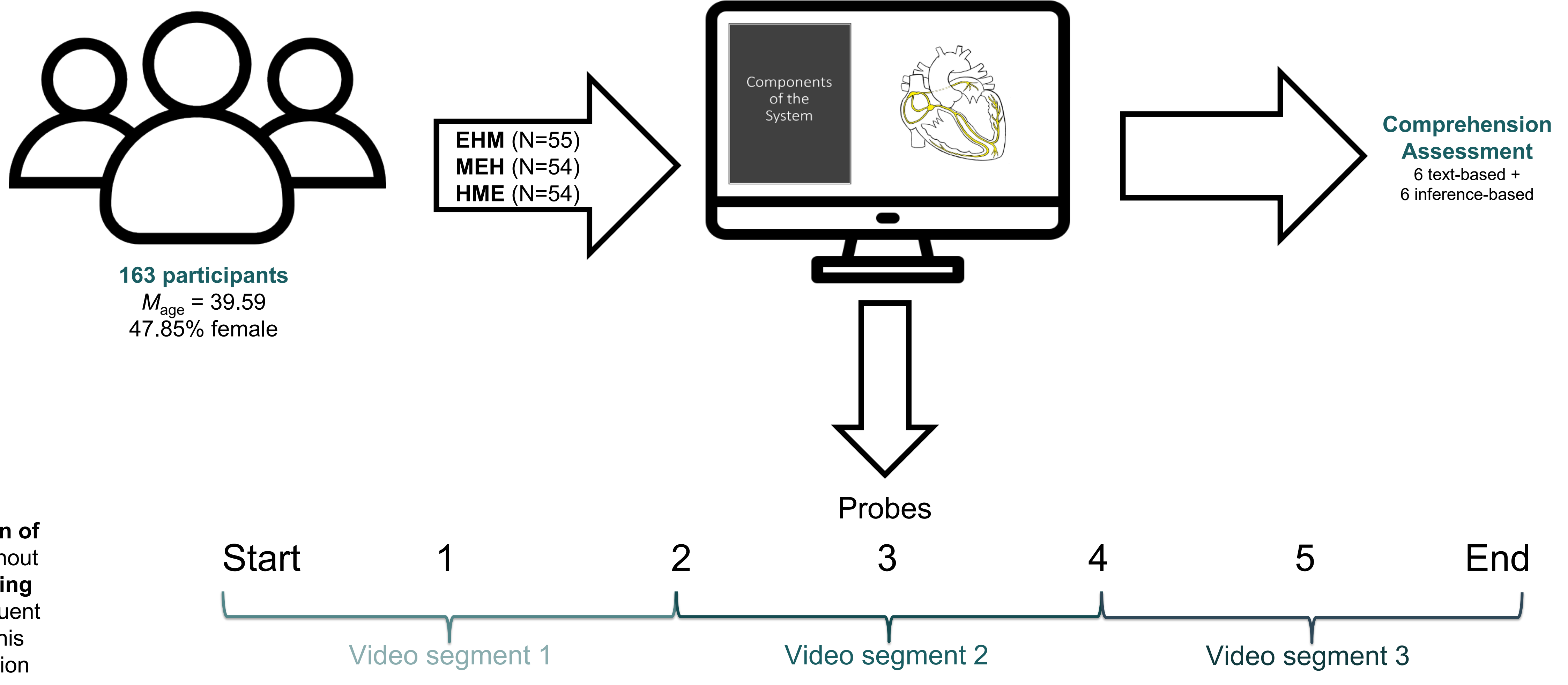
Do people report higher rates of TUT when starting with higher difficulty levels, even when the difficulty level subsequently decreases?

Do any increases in TUT impact comprehension?

## materials:

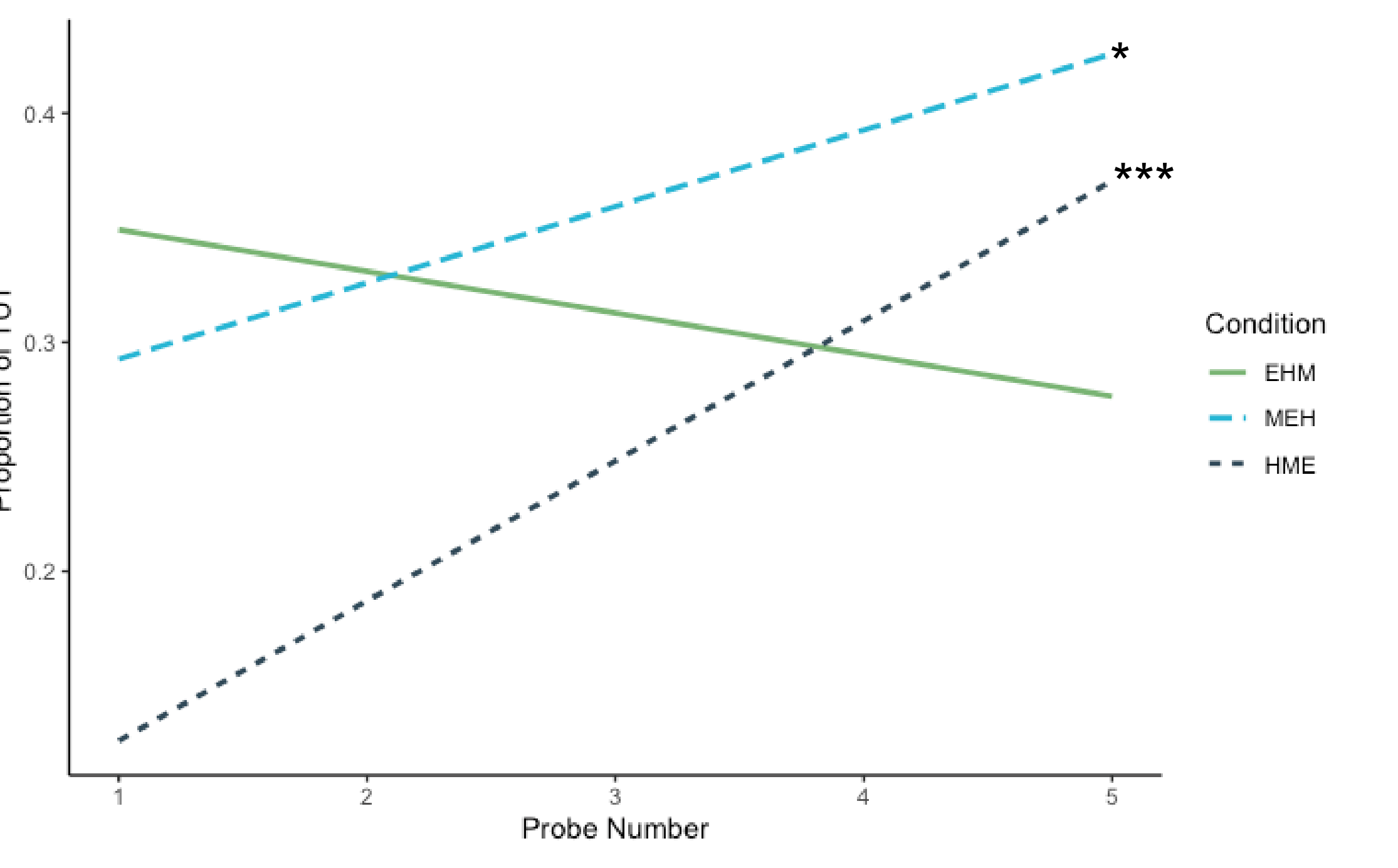
Easy	Medium	Hard
The Purkinje fibers carry the electrical signal throughout the walls of the ventricles. This causes contraction of the ventricles, which forces blood into either the pulmonary trunk or the aorta.	These Purkinje fibers serve as pathways for the electrical impulse to spread throughout the ventricular walls. <b>This propagation leads to the depolarization and subsequent contraction of the ventricles, resulting in the ejection of blood</b> into either the pulmonary trunk or the aorta.	These Purkinje fibers serve as <b>conduits for the transmission of the electrical impulse</b> throughout the ventricular walls, <b>culminating in depolarization</b> and subsequent contraction of the ventricles. This contraction leads to the expulsion of blood into either the pulmonary trunk or the aorta.
FKL = 8.05	FKL = 11.07	FKL = 13.53

## methods:

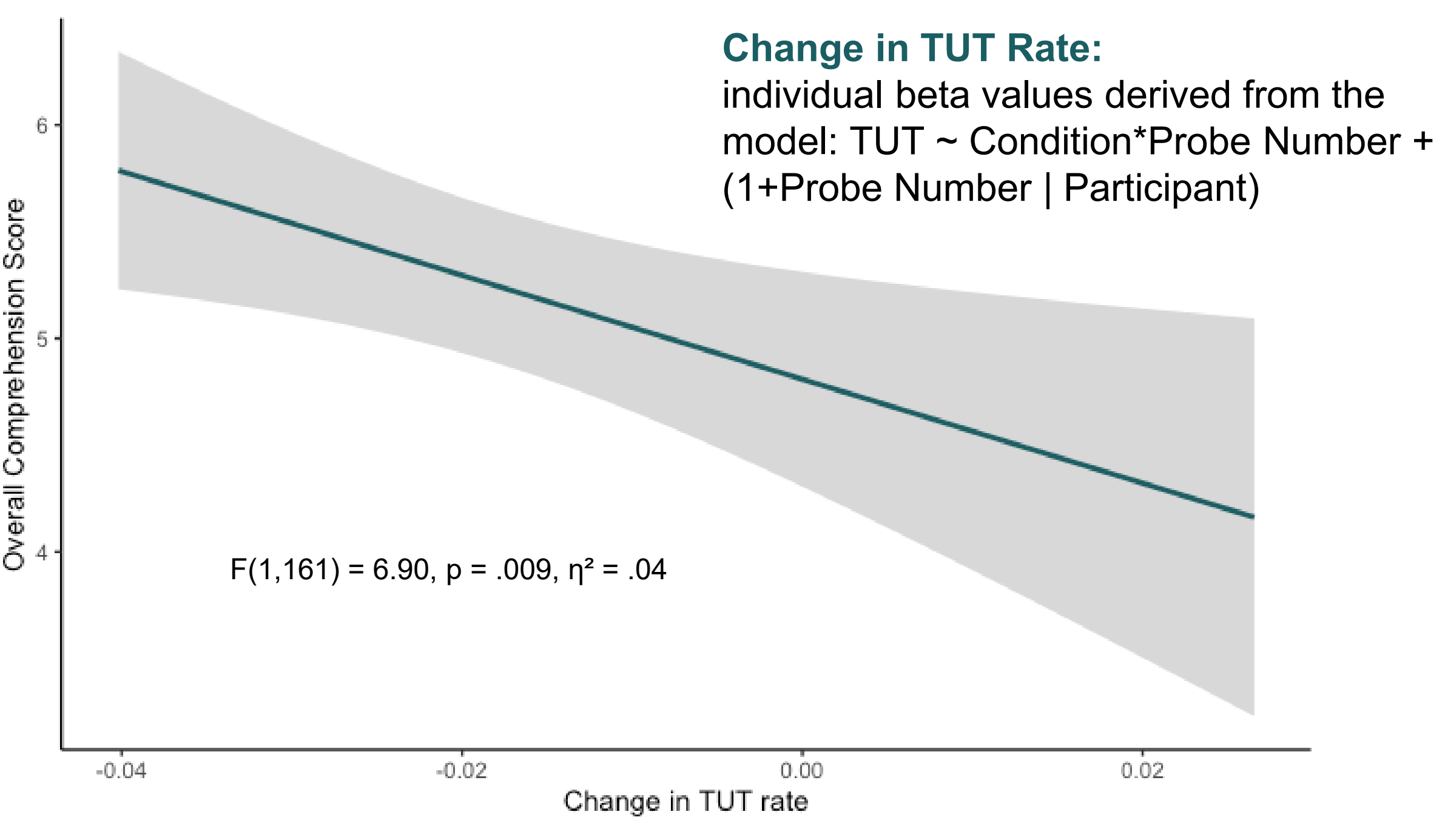


## results:

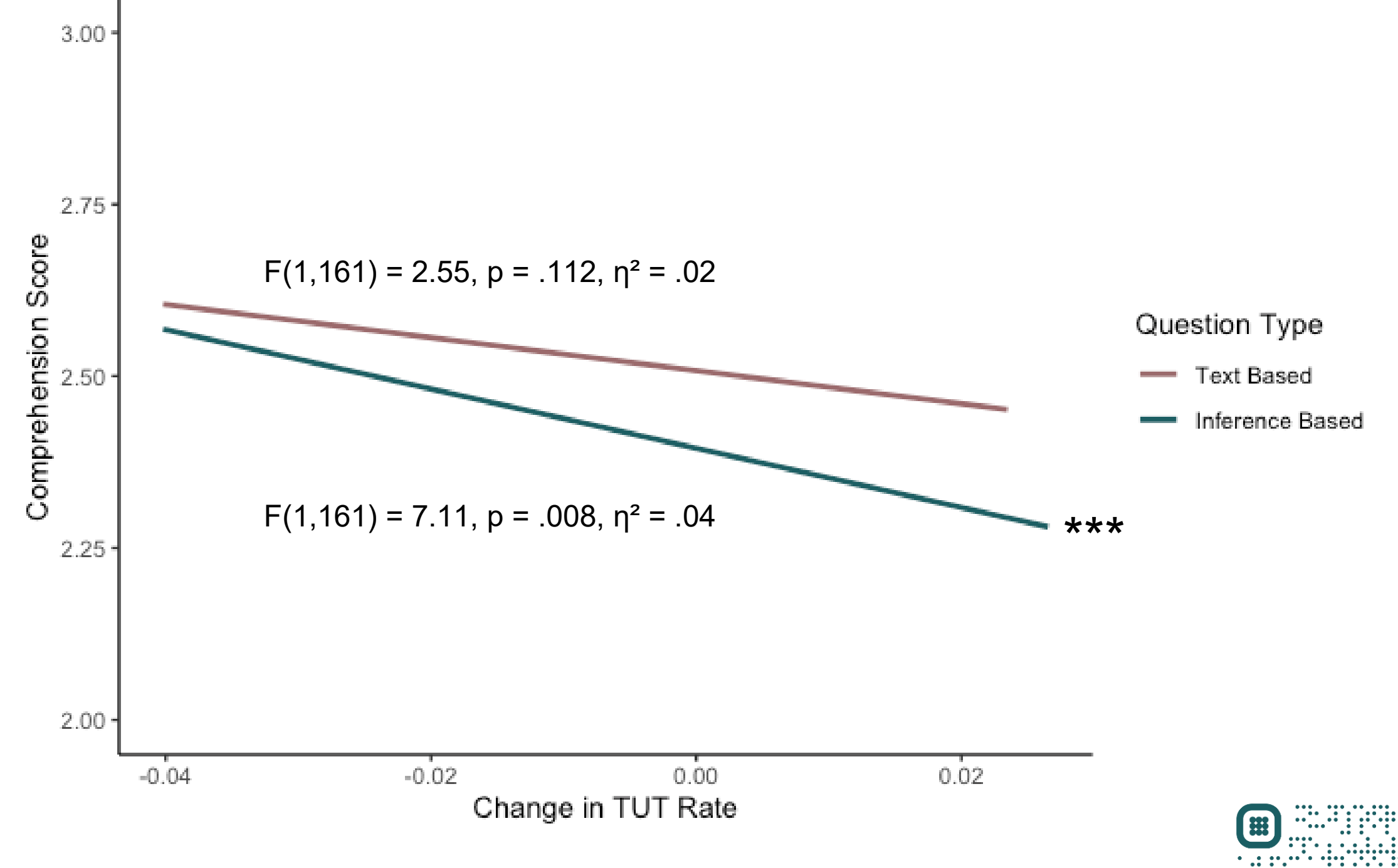
Does starting with a higher difficulty level lead to increases in TUT?



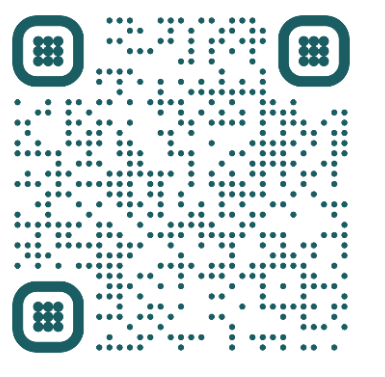
What effect does increasing TUT have on comprehension?



Is there a differential effect by question type?



When people go off task due to difficulty, they struggle to re-engage and this impacts their comprehension



Scan this QR code to get a PDF copy of the poster and learn more about me