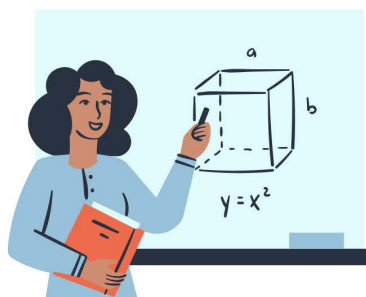


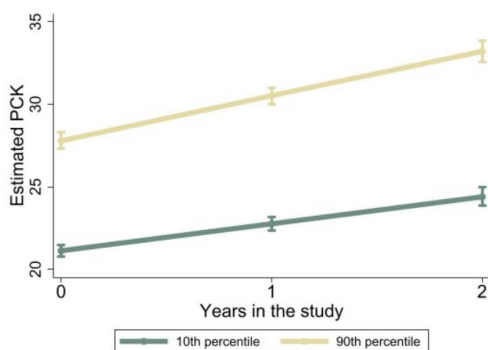
Teachers develop pedagogical content knowledge from teaching without external support if they have strong **content knowledge**, use **cognitively demanding tasks**, or employ **student-centered teaching**.

#1751309: Development of Pedagogical Content Knowledge in Mathematics Among Beginning Teachers

### Content Knowledge



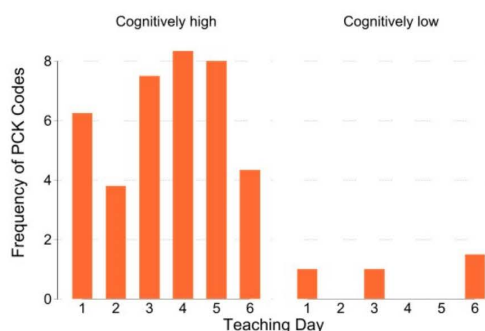
Teachers with **strong content knowledge** gain more **pedagogical content knowledge** from teaching.



### Cognitive Demand



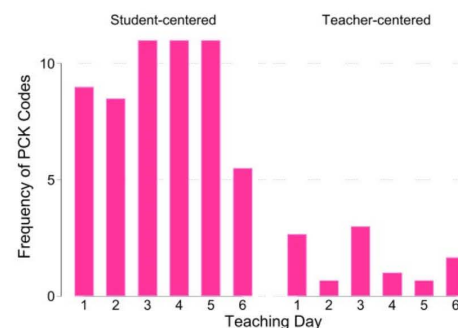
Using **cognitively demanding tasks** will lead to developing **pedagogical content knowledge** from teaching.



### Student Centering



**Student-centered teaching** helps teachers gain **pedagogical content knowledge** from teaching.



**Methods** Mixed Longitudinal Microgenetic

- Quantitative:
  - Longitudinal data from 207 novice teachers
  - Growth modeling to study PCK development
- Qualitative:
  - Microgenetic analysis with 5 teachers
  - Interviews before and after teaching

**Challenge Area** Attrition

- Regular check-ins and obtaining personal email addresses
- Data collection from a national sample of teachers



**Yasemin Copur-Gencturk**  
 ✉ copurgen@usc.edu  
 ✉ @copur\_gencturk

