Curriculum Pacing: A New Approach to Discover Instructional Practices in Classrooms

ITS 2018 Best Short Paper

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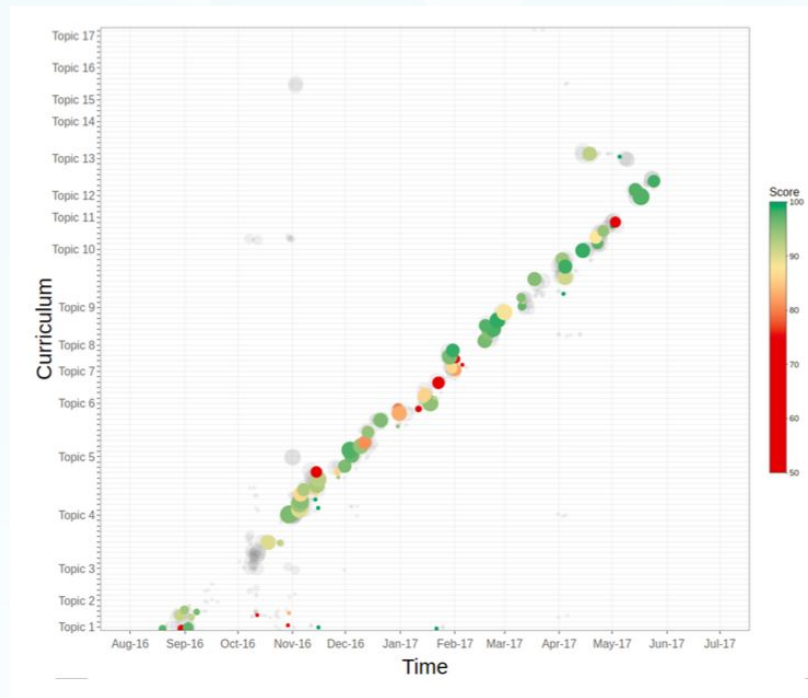Derek Lomas, Delft University of Technology

Curriculum Pacing
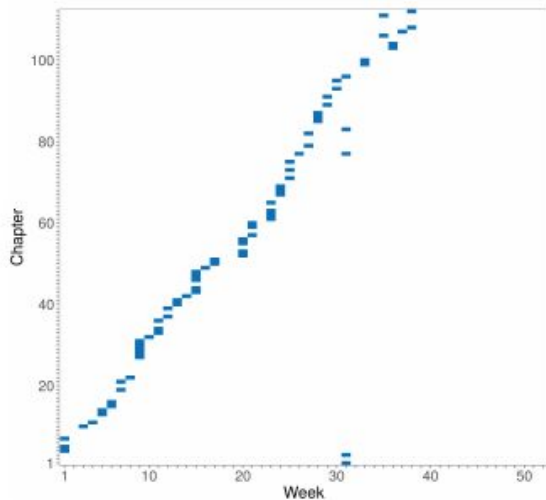
How do students 'pace through' a curriculum?

A big deal in K-12, teachers have pacing guides that they try to follow

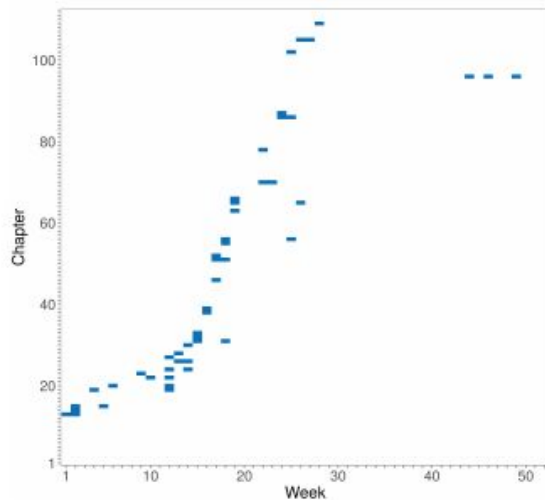There are variations in classroom pacings that are interesting to see

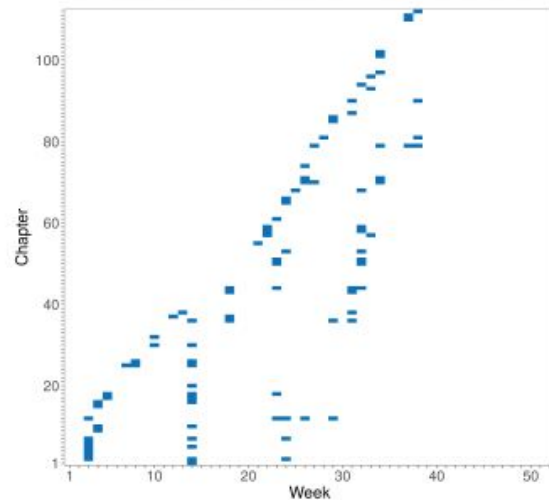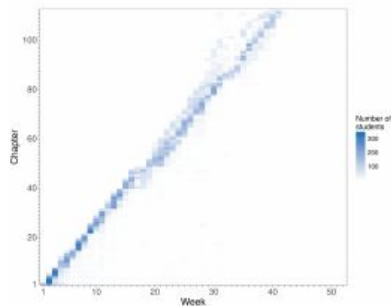Possible that variations are linked with outcomes

Examples

(a) A pacing where the curriculum is covered in a linear fashion
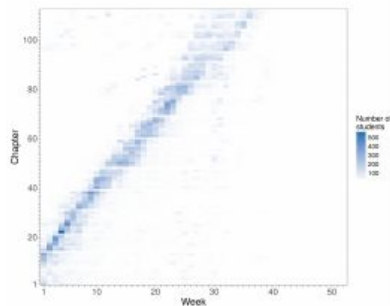
(b) An accelerated pacing where the curriculum is covered quickly during middle of the year
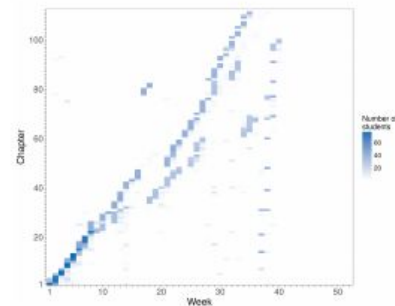
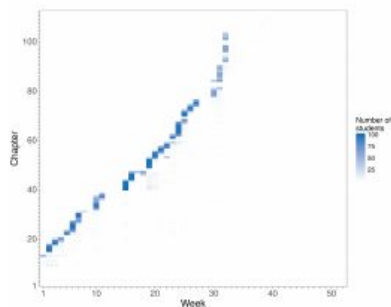(c) A pacing with "icicles" where the older content is revisited
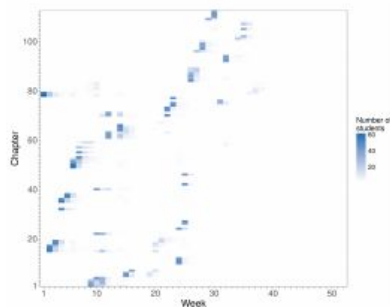
(a) A cluster of lockstep pacing patterns (N = 377)

(b) A cluster of flexible pacing patterns (N = 1482)
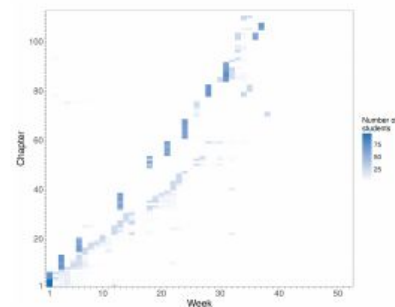
(c) A cluster with icicles (N = 78)

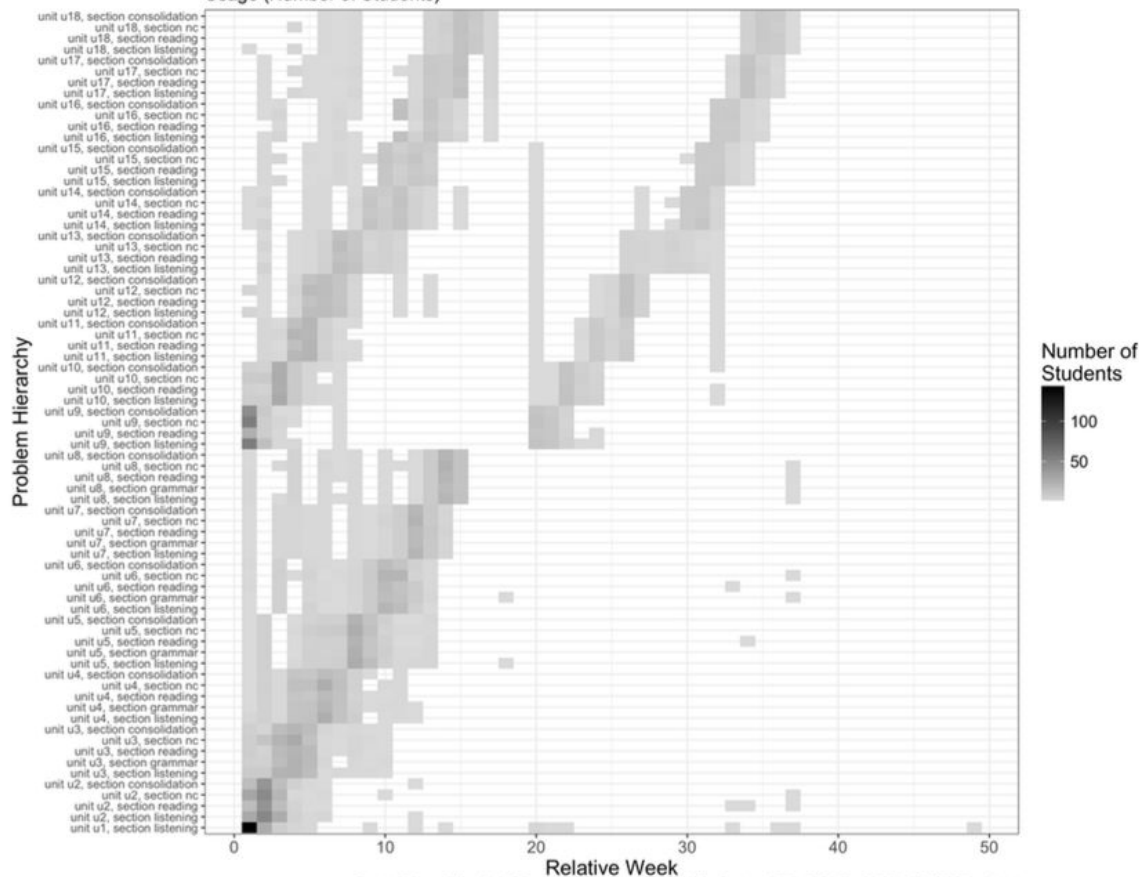(d) A cluster with cram-to-complete pattern at the end (N = 101)

(e) A cluster where curriculum was followed in an unexpected manner (N = 66)

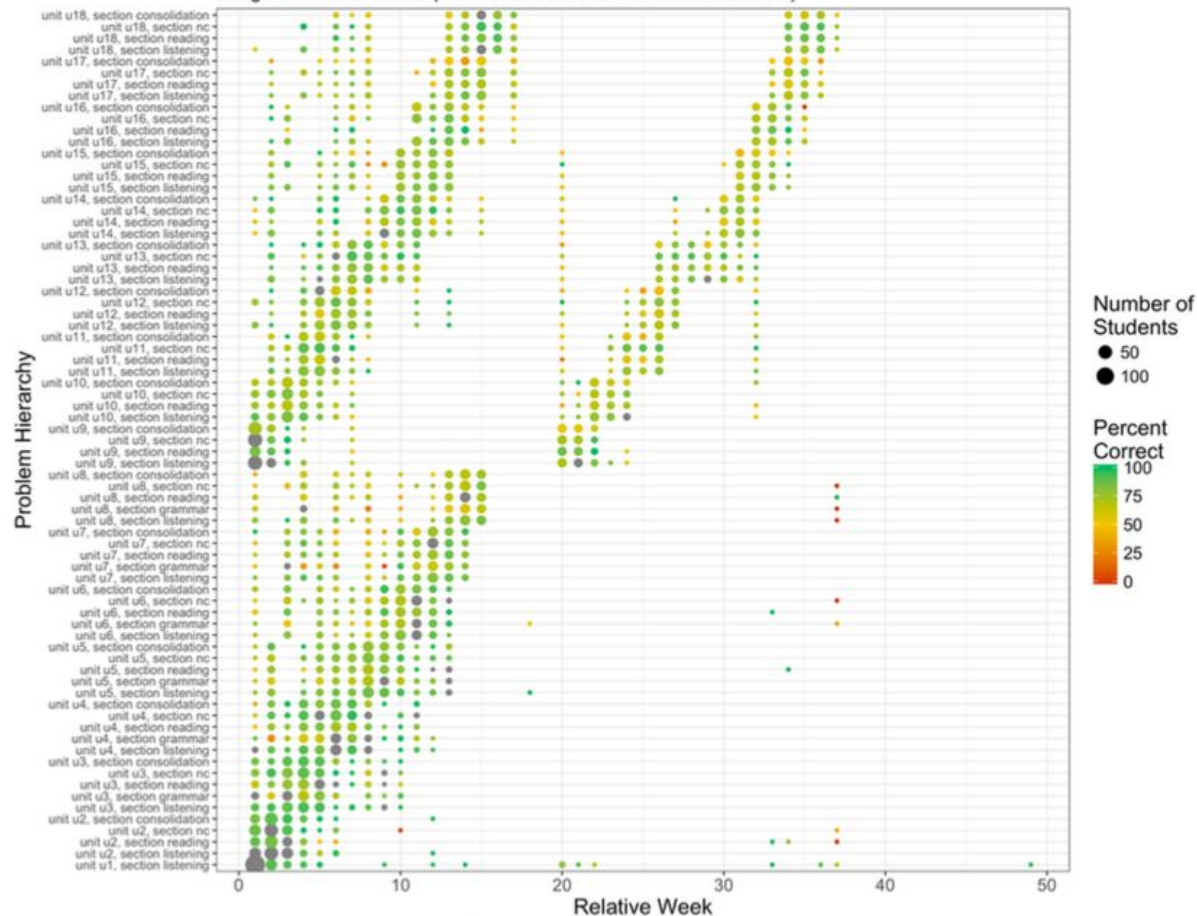(f) A cluster where curriculum was accessed in bursts (N = 100)

Curriculum Pacing for Elementary Chinese course
Usage (Number of Students)

DataShop File ds185_student_problem_All_Data_508_2015_0729_210705_1.txt

Curriculum Pacing for Elementary Chinese course
Usage and Performance (Number of Students and Percent Correct)

DataShop File ds185_student_problem_All_Data_508_2015_0729_210705_1.txt

Code

Please find the code of the visualization here:

https://github.com/nirmalpatel/edviz-2019