In the paper by Crawford et al., the authors gave a review of the recent innovations in the student-centered teaching studies in STEM subjects. They first introduced the theoretical background of these studies, i.e. the student-centered teaching philosophy comes from the constructivists' view, which initially originated from behaviorism and cognitivism. They referenced studies that followed the two schools in constructivism, the radical and social construcivism, where the social construcivism studies have focused on the effect of classroom discourse. Based on different theoretical frameworks, they reviewed studies with different highlights, such as RME where realistic context problems were given high priories, especially for engineering students, in which technology is sometimes employed; IBL and PBL that gave students inquiry or project based learning experiences, and studies involving these methods showed benefits by certain standards. The technological aspect of the innovations was included in studies showing the benefits of softwares such as matlab and mathematica as stimulation or mathlab as an online homework platform. They also reviewed studies that tried to bridge the gapping between mathematical knowledge and studies that tested the formative assessment framework. Their conclusion is that the studies have in general proposed a shift from the traditional to the innovative teaching method, and they also referenced studies that gave reasons for the difficulties for such a change.

It was mentioned in Crawford's paper that engineering students tend to have a different way of thinking towards mathematics than mathematicians. This made me realize that almost all of my students were engineering students, and my way of thinking about mathematics may not apply to them. Despite my personal lack of experience with IBL/RME learning, it might still be true that engineering students can benefit more from the more realistic setting.