Yang, D. (2017). Instructional strategies and course design for teaching ... Retrieved October 19, 2020, from https://link.springer.com/content/pdf/10.1186/s40594-017-0096-x.pdf

In this article the author offers strategies and solutions to the commonly held problems of online instruction. This study reflected the effectiveness of instructional strategies regarding an online course from a student's perspective. “Research showed that students’ perceptions of their overall learning experience with instructional strategies and online course design not only affected their perceived learning but also their overall satisfaction of an online course.” (Myers and Schiltz [2012](https://stemeducationjournal.springeropen.com/articles/10.1186/s40594-017-0096-x#ref-CR40)). Reflection and course evaluation data was collected to identify the course design features and instructional strategies that help students in learning statistics through the online method. Most notably of the effective strategies was case studies, conducting mini projects and creating online discussion communities were found to be most effective. STEM instructors need to keep in mind that “online learning is as much a social activity as an individual one” (Brindley et al. [2009](https://stemeducationjournal.springeropen.com/articles/10.1186/s40594-017-0096-x#ref-CR14)) Having a variety of modalities in the design such as various sources, interactive learning and peer-to-peer collaboration lead to greater retention of subject content by a greater range of students.

Belfield, C. (2015). (PDF) The Economic Value of Social and Emotional Learning. Retrieved October 19, 2020, from https://www.researchgate.net/publication/296195268\_The\_Economic\_Value\_of\_Social\_and\_Emotional\_Learning

In this article the author examines the benefit of creating a higher emphasis on SEL social and emotional learning in the classroom and beyond. The focus on social and emotional learning has benefits outside of the immediate scholastic performance assistance but helps students better prepare for adulthood and to make real world connections. Ultimately, social and emotional competencies encourage a shift to an internal focus of control, allowing individuals’ choices and actions to better accord with their own values. These competencies relate to “soft skills” and personality traits that, according to Heckman and Kautz (2012) Having significant class time spent on developing social skills within students creates more perceptive and emotionally aware individuals. The curriculum strategy known as second step develops cognitive behavioral methods which are interactive lessons that relate to problem solving and emotional management. Helping students become aware of their emotional state and internally regulate their communication appropriately increases social competency and engaging more meaningfully with their classwork.

Chatfield, C. (1982, January 01). Teaching a Course in Applied Statistics, by C. Chatfield. Retrieved October 20, 2020

In this work looking at the field of mathematics and how to teach statistics, the author presents methods commonly used in Science, Social Science, and Mathematics to connect with students. Statistical Concepts are explained with the intention of giving students a real-life perspective rather than contrived notions of the applicability of this subject within the mathematics field. Basic concepts and theories of statistics help inform our practice of delivering a lesson regarding the use of statistics in modeling Covid-19 results like true negative and false positive results. The role of computers and analytics are parts the method of delivery used in tackling statistical problems and connecting with students.

Goffney, I., Gutiérrez, R., & Boston, M. (Eds.) (2018). *Rehumanizing Mathematics for Black, Indigenous, and Latinx Students*. (Annual Perspectives in Mathematics Education; Vol. 2018). National Council of Teachers of Mathematics.

This article was on systems of Oppression and BIPOC interaction with mathematics. This research was conducted to understand better how students' identities are formed through learning, developing a curriculum that embraces a student's whole self and advocates for a diverse community. Principles of teaching Mathematics as a subject in a humanizing way are empathized. The emphasis on re-humanizing the subject, reflects the consistent nature and requirement that classrooms of the future bring equity to underserved communities. Regarding the consistent process of bringing equity to BIPOC as a pedagogy, that would require reoccurring evidence from students partaking in that learning who confirm their identities and background are being served.

Clark, S. (2020, September 21) Personal Interview.

This interview focused on how to bring CRP into a mathematics classroom, making connections between Math and the real world, and how the influence of a philosophy on teaching mathematics currently can be challenging. Bringing CRP into a mathematics classroom through distance learning looks like involving student voice and choice through creative digital platforms. Making mathematics accessible and real for students involves connecting the use of mathematics to solving real world problems and allowing students themselves to use statistical strategies in answering those questions. The influence of an individual teaching philosophy on how we teach statistics in a meaningful way, requires one to focus on a student centered pedagogy.

Campbell, K.J. , Collis, K.F. , & Watson, J.M. (1995). Visual processing during mathematical problem solving. Educational Studies in Mathematics, 28, 177—194.

In this article on the study exploring the relationship between correct mathematical problem solving based upon a schematic method of visualization and spatial relationships problem solving sought to determine which method adolescent students would find greater success with. For the study thirteen mathematical problems of students and read to them individually before allowing them the opportunity to solve. After the presentation of questions and time to solve students had a reflective interview to explain how the problem was solved and which method visual or spatial was utilized. The reflected interview let students know prior to completion they would be asked several questions regarding their problem solving method and in an open-ended way, notified them that there is no right or wrong answer. Only interest was in thinking utilized to solve the problem.