Secondary Mathematics Teacher Candidates' Perceptions of a Statistics TACTivity Designed to Support Equitable Teaching Practices

Equity-centered Transformative Technology
Dimension 1: Access to Inquiry-based Learning
Dimension 2: Promote Math Identity through Authorship and Agency
Dimension 3: Use Technology for Formative Assessment & Differentiation
Dimension 4: Empower Learners Through Collaboration, Communication, and Collective Thinking
Dimension 5: Amplify Mathematical and Cognitive Processes
Dimension 6: Gain Insights Using Tech Tool on Social Justice Issues

Question Prompts to Center Equity

In what ways does the choice of technology give learners equitable access to mathematical inquiry, discovery, conjectures, and foster sense-making?

In what ways does the technology allow student ownership and authorship to create, represent, and share their mathematical thinking to build positive mathematical identities?

In what ways does the technology used in the lesson allow for formative assessment and differentiation to meet learners' needs?

In what ways does the use of the technology allow for learners to collaborate, communicate, and build collective knowledge among their peers and provide opportunities to affirm multiple ideas and empower learners' ideas?

In what ways do the features of the technology make mathematics concepts visible and amplify cognitive processes?

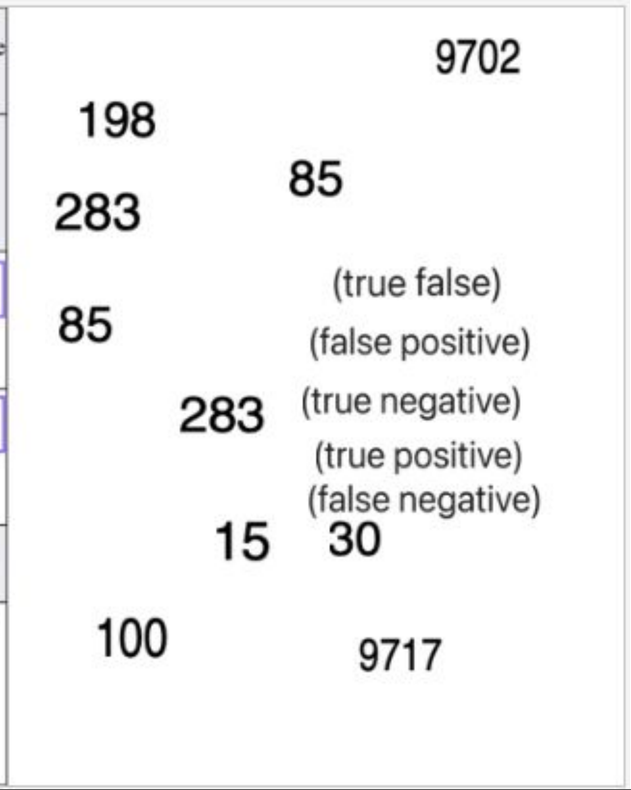
In what ways does the technology provide insight into issues of social justice?

In a population of 10,000 people, 1% are infected with COVID-19. All 10,000 people are tested, using a test that has a 2% false positive rate (2% of those who are uninfected will test positive), and a 15% false negative rate. Complete the table, and the conclusion below. (Numbers in purple boxes; words in green boxes.)

Number of people	Infected	Uninfected	Total
Test positive			
Test negative			
Total	100	9900	10000

CONCLUSION: Even though the test is has a false positive rate of only 2%, out of all people who test positive for COVID-19, only

$\frac{\square}{\square} \approx \square\%$ are actually infected!



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Equity-centered Transformative Technology (EqT-tech)

Lesson Analysis Tool (LAT)

J. Suh, K. Roscioli, T. Wills, K. Morrow-Leong, and H. Tate, Equity-centered transformative technology lesson analysis tool (2024), available at https://www.eqttech.org/

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