

Online Learning: Mathematical Connection ability in terms of Learning Style and Gender.

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- **Abstract:** Mathematical connection refers to the ability to associate mathematical knowledge with mathematical skills in real life. The goal of this study is to determine the efficacy of online learning on mathematical connection abilities. The goal of this study is to evaluate the effectiveness of online learning on mathematical connection abilities, identify other aspects of learning styles, identify students' mathematical connection abilities who receive online and offline learning in terms of learning styles, and identify differences in mathematical connection abilities in online learning in terms of learning styles and gender. This research employed both quantitative and qualitative methods. By combining qualitative and quantitative methods in a balanced manner, this research method combines the two methods. The method is used in tandem, but independently, to answer similar problem formulations. Following interviews, tests and learning styles are triangulated with questionnaires that assess mathematical connection ability. According to the findings of this study: 1). Online distance learning significantly improves the mathematical connection skills of Madrasah Ibtidaiyah Teacher Education students at IAIN Surakarta. Because the average mathematical connection ability is higher than the Offline method, the effectiveness is known. Because the average mathematical connection ability is higher than the Offline method, 2) significance is known. Female students use learning styles from the heart at a rate of 69.56 percent, while male students use learning styles from the head at a rate of 65.21 percent. As a result, male students perform worse than female students in terms of using the learning style from the heart, 3). Female students who use online learning have the best mathematical connection ability in audio learning styles, while offline learning is also audio. Male students who use online learning the most have the best mathematical connection ability (kinesthetic for offline learning and kinesthetic, 4). Female students' mathematical connection ability is seen in the best learning style, while male students' best learning style is kinesthetic. When viewed from a learning style perspective, there is a difference in the ability of mathematical connection between the online distance learning method and the offline method, but there is no difference in terms of gender.
- **Keywords:** mathematical connection ability, online learning, quantitative, Madrasah Ibtidaiyah