

## **Critical Reflection in Teaching and Learning Mathematics towards Perspective Transformation: Practices in Public and Private Schools**

**Authors :** Arturo Tobias Calizon Jr.

**Abstract :** The study investigated the practices in critical reflection being employed in teaching and learning mathematics in public and private schools for students to achieve perspective transformation in psychological, convictional and behavioral dimensions. There were 1,969 senior high school and college student-respondents selected at random from 33 schools. Process reflection is most commonly practiced in both public and private schools. Convictional dimension of perspective transformation is most frequently achieved. There is no significant difference in practices of process reflection between senior high school and college students. However, there is a significant difference in perspective transformation in behavioral dimension achieved by students from public and private schools. Also, there are significant differences in psychological, convictional and behavioral dimensions of perspective transformation achieved by senior high school and college students. There is a high and significant relationship between critical reflection practices and perspective transformation of students. The researcher concludes that there are teaching strategies that facilitate critical thinking, and there are learning activities that alter perspective of students about mathematics as an abstract field. The researcher further concludes that consistent use of appropriate teaching and learning activities could bring about perspective transformation in students with success.

**Keywords :** critical reflection, perspective transformation, process reflection, convictional dimension, teaching and learning mathematics

**Conference Title :** ICMEELS 2019 : International Conference on Mathematics Education and Learning Sciences

**Conference Location :** Sydney, Australia

**Conference Dates :** January 30-31, 2019