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### **Critical reflection in teaching and learning mathematics towards perspective transformation: Practices in public and private schools**

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**S**tatement of the Problem: 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 behavioural dimensions. Orientation: There were 1,969 senior high school and college student-respondents selected at random from 33 schools. Findings: 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 significant difference in perspective transformation in behavioural dimension achieved by students from public and private schools. Also, there are significant differences in

psychological, convictional and behavioural dimensions of perspective transformation achieved by senior high school and college students. There is high and significant relationship between critical reflection practices and perspective transformation of students. Conclusion: The researcher concludes that there are teaching strategies like discovery learning that facilitate critical thinking, and that there are learning activities like technology-based problem solving that alter their perspective of 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. Recommendation: It was recommended that teaching and learning strategies that employ the use of educational technology be frequently used for critical and reflective thinking among students.

#### **Biography**

Arturo Tobias Calizon Jr. has recently completed his Doctoral of Philosophy degree in Educational Management. He has been teaching mathematics in the tertiary level since 1987. His current interests include qualitative study using the grounded theory approach. He has presented papers on gender studies in Boston and Washington, DC in the United States and in Thailand. At present, he is conducting a research on the impact of the implementation of K-12 curriculum on the families of the first batch of students who have completed Grade 12 and have enrolled in universities and colleges to pursue bachelor degrees in different fields.

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