

## Using Indigenous Games to Demystify Probability Theorem in Ghanaian Classrooms: Mathematical Analysis of Ampe

**Authors :** Peter Akayuure, Michael Johnson Nabie

**Abstract :** Similar to many colonized nations in the world, one indelible mark left by colonial masters after Ghana's independence in 1957 has been the fact that many contexts used to teach statistics and probability concepts are often alien and do not resonate with the social domain of our indigenous Ghanaian child. This has seriously limited the understanding, discoveries, and applications of mathematics for national developments. With the recent curriculum demands of making the Ghanaian child mathematically literate, this qualitative study involved video recordings and mathematical analysis of play sessions of an indigenous girl game called Ampe with the aim to demystify the concepts in probability theorem, which is applied in mathematics related fields of study. The mathematical analysis shows that the game of Ampe, which is widely played by school girls in Ghana, is suitable for learning concepts of the probability theorems. It was also revealed that as a girl game, the use of Ampe provides good lessons to educators, textbook writers, and teachers to rethink about the selection of mathematics tasks and learning contexts that are sensitive to gender. As we undertake to transform teacher education and student learning, the use of indigenous games should be critically revisited.

**Keywords :** Ampe, mathematical analysis, probability theorem, Ghanaian girl game

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