

## What Constitutes Pre-School Mathematics and How It Look Like in the Classroom?

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**Abstract :** This study reports on an ongoing research that explores pre-school mathematics. Participants in the study includes three pre-school teachers and their pre-school learners from one school in Gaborone. The school was purposefully selected based on its performance in Botswana's 2019 national examinations. Specifically, the study is interested on teachers' explanations of mathematics concepts embedded in pre-school mathematics tasks. The interest on explanations was informed by the view that suggests that, the mathematics learners get to learn, resides in teachers' explanations. Recently, Botswana's basic education has integrated pre-school education into the mainstream public primary school education. This move is part of the government's drive to elevate Botswana to a knowledge-based-economy. It is believed that provision of pre-school education to all Batswana children will contribute immensely towards a knowledge-based-economy. Since pre-school is now a new phenomenon in our education, there is limited research at this level of education in Botswana. In particular, there is limited knowledge about what and how the teaching is conducted in Pre-Schools in Botswana. Hence, the study seeks to gain insight into what constitutes mathematics in tasks that learners are given, and how concepts are made accessible to Pre-school learners. The research question of interest for this study is stated as: What is the nature Pre-school teachers' explanations of mathematics concepts embedded in tasks given to learners. Casting some light into what and how pre-school mathematics tasks are enacted is critical for policy and Pre-school teacher professional development. The sociocultural perspective framed the research. Adler and Rhonda's (2014) notion of exemplification and explanatory communication are used to analyze tasks given to learners and teachers' explanations respectively.

**Keywords :** classroom, explanation, mathematics, pre-school, tasks

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