

## Study on the Influence of Teachers on the Mathematics Achievements of Rural Students

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**Abstract—** This study explores how the fourth goal of the Sustainable Development Goals (SDG 4), which promotes inclusive, equitable, and quality education, is being implemented in mathematics education in rural areas of Mongolia. A total of 182 mathematics teachers from 21 provinces participated in the survey.

SDG 4 emphasizes the right of all individuals to receive quality education without discrimination. Therefore, the research sought to assess whether students in rural secondary schools are receiving equitable, accessible, and quality mathematics education. Teachers were asked to evaluate factors influencing students' academic performance, including (1) the teacher's influence, (2) the role of parents and guardians, (3) differentiated instruction that considers student interest, demand, and diversity, (4) the need for additional support for both students with special needs and those with high intellectual abilities, and (5) the impact of school environment and resources.

The findings indicate that the highest influence on mathematics achievement among rural students came from teacher-related factors ( $M=3.52$ ) and the provision of additional opportunities for gifted students ( $M=3.47$ ). Parental involvement ( $M=3.38$ ) and learner-centered instruction ( $M=3.30$ ) followed. The school environment had the lowest average score ( $M=2.97$ ). These results highlight the critical role of teachers and equitable educational support in improving mathematics outcomes for rural students