GAME-BASED MATHEMATICS INSTRUCTION

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We are all aware of how much learners love to play games. We know firsthand that playing games may be a highly effective learning activity. However, how should we react if someone asks us to defend the pedagogical value of using games in math lessons?

One benefit of employing games in math education is the use of realistic circumstances to apply mathematical abilities. Not to mention the motivation since students can actively consider engaging and prefer to play with a good attitude – seeing as games offer an opportunity for creating self-concept and establishing positive perceptions, lowering the sense of failure and mistake.

Furthermore, due to enhanced student involvement and the opportunity to test intuitive concepts and problem-solving techniques, games have the potential to promote better learning than more formal exercises. Students can learn from one another and operate at various levels of thought while playing games. Games can also enable students to presume at multiple levels and share knowledge.

Additionally, throughout a game, students' choices and actions frequently reveal their thinking, giving us, teachers, the chance to evaluate and monitor student learning in a risk-free environment. Similarly, games offer "hands-on" engaging activities, and students can function independently because the game's instructions and the students' natural drive to succeed typically help them be successful.

When examining the use of games for math instruction, it is essential to note that these "games" should always include a problem, a set of rules, a transparent primary mechanism, a clear end goal, and precise mathematical cognitive targets.

References:

Gough, J. (1999). Playing mathematical games: When is a game not a game? Australian Primary Mathematics Classroom. Vol 4. No.2