



Research 2: Methods of teaching Math

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This research is inspired from “Methods of teaching math” course.

Problem identification

As I work in an international school that uses the SABIS Curriculum; We have children from all over the world that come from diverse cultural backgrounds, different talents, and varied interests/intelligence. It was challenging to meet all my learning goals when there was such variation in the class.

It is challenging to have all students complete the same activity or exercise to demonstrate understanding and assess them uniformly when utilizing traditional teaching approaches like the "Teacher-Centered Classroom."

Some of the problems that I have faced are:

- Different abilities: I have pupils with various abilities, including advanced learners, on-level learners, below-level learners, and SEN students.
- Different pupils have different interests and levels of intelligence; some dislike math while others are very good at it. some are enjoying the complex calculations, while others did not enjoy the basics of mental math, etc.

- Students in foreign schools come from all over the world and have a variety of cultural backgrounds, which affects their beliefs and traditions.

The suggested strategy

We learned about various teaching strategies in the "Methods of Teaching Math" course, including teacher-centered, student-centered, and student-driven classrooms. The 21st Century Education Skills cannot be implemented effectively in teacher-centered classrooms; luckily, in SABIS, we have the advantage of using student life organization (SLO), which trains both teacher and student to perform student center education, and its mandatory to use shadow teacher in class at least twice a week.

A student-centered classroom is my preference. I divided the class into groups according to students' abilities to give the weaker students a chance to learn from the high achievers. I also believe that involving students and engaging them in the learning process will result in the most significant benefit.

Students enjoy collaborating in groups, and learning will undoubtedly occur when they participate in practical activities. Along with communication abilities, it also enhances pupils' social skills.

My diverse interests, abilities, and intelligence in my class were considered as much as possible when I employed differentiation and designed my lessons, activities, and evaluations.

Why Student-Centered learning?

Teachers are the main factor in deciding which approach she/he will follow in teaching. Student-Centered learning will happen only when teachers believe in their students as part of the decision-making process and involve them in it.

When students feel that they are part of the learning process, their buy-in, involvement, and level of achievement will increase. Correspondingly, their confidence levels as they can connect their previous knowledge to what they are learning. The curriculum should be presented to students in a meaningful way that connects them to the real world, and they can use the skills they are learning in a meaningful way in their daily life.

According to Multiple Intelligence for Gardner, all people have different types of intelligence and learn differently. The first version in 1983, In his Book "Frames of Minds: The Theory of Multiple Intelligences" suggested 8 different kinds of intelligences with the possibility of including a ninth one known as the "Existential Intelligence".

This call for including Differentiated instruction and trying as much as possible to include different activities and assessments to cater to all students fairly. It is very challenging,

but a lot can be managed with good planning and knowing the students' characters and preferences.

According to Peter S. Westwood: "It is really about taking account of significant differences among students in terms of their ability (or disability), rate of learning, language proficiency,

literacy and numeracy skills – and then using this knowledge to adapt the way and learning activities are presented." (Westwood, 2016)

It is essential to use differentiation to ensure that all levels and abilities are covered and all my students are learning in my class; no one is left behind.

The outcomes

My kids benefited from using a student-centered approach and differentiation in my class. I could learn more about my children, comprehend their needs, and provide for them. Additionally, it improved their general performance and boosted their self-confidence. Their social and communication abilities were enhanced by including them in decision-making, activities, and learning. Additionally, it improved classroom organization, decreased disruptions, and allowed students to participate actively in their education rather than being passive recipients.

And on a very personal level when I am absent for any reason, I can depend on my shadow teacher to move on and teach and use the session time properly.

What kids can do was shown in the differentiated instruction, exercises, and evaluations.

Since they always had a range of options to select from when completing their various duties, kids always enjoyed what they were doing.

References

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