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**Philosophy of Teaching and Learning**

 The purpose of teaching is not only to pass information along to our students, but more importantly, to instill knowledge upon our students in order for them to succeed in life. The common saying by Lao Tzu, the founder of Taoism, comes to mind, “Give a man a fish, feed him for a day. Teach a man to fish, feed him for a lifetime.” Students need to be able to develop skills and apply what they have learned in our classrooms in order for them to be successful. Students learn best when they feel safe, capable and confident. As teachers, we need to guide, support and nurture our students in order to ensure their success and help them reach their full potential.

 One key factor in ensuring this success is running a successful classroom. Set fair classroom rules and enforce these rules consistently. These rules should not only help with classroom management and with allowing the classroom to run smoothly, but also to allow the students to know what is expected of them. Set and express high expectations for student achievement. Students need to know what a teacher expects of them and that the teacher wants them to do well. This leads to gaining a mutual respect between teacher and student, and in turn trust, which allows each student to perform to their best ability. All of this helps students gain self-confidence, which is essential in their development into young adults.

 Students should also be encouraged to think and express themselves freely. A classroom is a place that is supposed to inspire students to be individuals. There is not always one way to solve a problem and sometimes there is not always one right answer. Teachers should promote student individuality by teaching and entertaining alternate methods and solutions. Children are naturally curious beings that seek to be different, so allow their instinctual curiosity to lead them to learn. Invite students to take risks, even though the risk may or may not lead them to the correct answer. If a student does find an alternate method or solution, have them share it with the rest of the class and discuss the reasoning behind it. The fostering of student individuality will also help students gain confidence in their capabilities and competency.

 As a teacher, it is imperative to reach all six levels of the Cognitive Domain in Bloom’s Taxonomy (Remember, Understand, Apply, Analyze, Evaluate, and Create) for each topic. By reaching the highest levels, students truly understand the material; not just the “what,” but the “why” and the “how.” According to Richard Skemp, it is obvious that relational (true) understanding is more beneficial to the students in the long run and is the better way to truly learn There are countless ways to reach all of these levels; it is up to the teacher to try different methods to ensure the students will gain a full understanding of the material (Skemp, 1976).

 One way to reach the higher levels of Bloom’s Taxonomy is to have a student-centered classroom. I am a firm believer in student-centered classrooms. This crucial role of guiding the students’ understanding and learning through mathematics is more beneficial than lecturing. I want to encourage independent thinking and analytical reasoning to augment their problem solving skills. Acting as a guide will point the students in the direction they should go to find answers and solve problems, by providing them with essential background information they need to do so. Teachers can also utilize group work to help the students be the leaders of the class. In a group, students can exchanges ideas and methods. Having to explain a topic to another person helps the students to grasp a deeper, more meaningful understanding of the material.

 Understanding how people learn is one significant aspect of teaching. The key is to relate to the students by starting from what they know and building upon it. By providing real life examples and problems that relate to the students, it makes it easier to motivate the students to learn. Real world applications make learning meaningful and relevant to their lives. Also, incorporating active or exploratory learning into the curriculum is a fantastic way of grabbing student curiosity. It is a hands-on and exciting way to learn about how the topics we are learning apply to the real world. This creates a stimulating environment for students which enhances and cradles their learning. Students can and should learn through discovery. The use of technology is an incredible way to grasp the attention of the current generation of student and allows them to explore. Children invite learning through technology and yearn for the opportunity to do so. Instructional strategies that incorporate technological exploration meet the needs of 21st century students. By incorporating real world scenarios in the classroom, the students are able to develop problem solving strategies, which will help them not only in school, but also in their careers and everyday lives.

 The student learns by rote to operate with [mathematical] relations that he does not understand, and of which he has not seen the origin…. Therefore the system of relations is an independent construction having no rapport with other experiences of the child. This means that the student knows only what has been taught to him and what has been deduced from it. He has not learned to establish connections between the system and the sensory world. He will not know how to apply what he has learned in a new situation.

 (van Hiele, 1959, p. 62)

 Students are unique in more ways than one. They may learn best in different ways using different techniques. Students have varying abilities and learning styles, and teachers need to reach all learners by adapting their lessons and teaching styles. Recognize and adhere to their individual needs to ensure success. A teacher should make learning a personal experience by meeting the needs of each individual student. In order to find where each student stands, assess their prior knowledge and build upon it. I prefer to avoid teaching by rote memorization because the students do not really gain an understanding of why what they are learning is true. A better way to reach the students is to understand how they learn and utilize teaching strategies that best aid in student understanding. For example, the cognitive theory of learning stresses the importance of the use of prior knowledge to build upon and takes into account how student memory can enhance student learning. Additionally, the constructive learning theory underlines the importance of having students act as active learners in order to promote the process of constructing knowledge for themselves. These two theories work well with a variety of learners and truly enhance the learning environment and learning abilities of each student.

 To ensure students are grasping the content of the curriculum, teachers need to assess student progress on a regular basis. Exams, tests, quizzes and projects are all methods of formally assessing students. When it comes to projects, allow students to be creative. Allow them to create a project on something they are interested in. This is another way students can relate learning to their lives. In addition to formal assessments, the use of informal assessments (an exit ticket for example) is a crucial supplemental method of gauging the progress of student learning.

 I feel an approachable teacher, who sets up a comfortable atmosphere that is conducive to learning, promotes effective teaching and learning. I am a teacher that is totally involved and dedicated to my students and am prepared to devote my time and energy towards them and their learning. Students should also be able to count on me, as the teacher. I consistently offer extra help session and continually encourage students to attend. Grading fairly is important to me, so I give partial credit on incorrect answers as much as possible. I make it a point to return graded work in a timely fashion. My teacher website is regularly updated with homework assignments, important dates, and helpful hints. I respond to emails and phone calls (from parents and students) within one work day to keep communication flowing. In the classroom, I make sure every student feels welcome and never put a student down. No question is ever a stupid question, so I encourage students to ask questions freely. Lastly, I treat my students with respect and expect nothing less from them.

 Teaching is quite possibly one of the most prestigious and rewarding professions. My interest in teaching began all the way back in middle school. I hardly ever had trouble in math class, even when my peers were struggling. When they could not understand the material, they came to me for help; I always had a knack for explaining mathematics in more understandable terms. This was when I realized my love of the ability to make differences in people’s lives, of teaching. In addition, my love of math has led me to my career choice of being a mathematics teacher. As soon as students have that one math teacher that turns them on to math, they will always prosper in math classes, and maybe even gain a love for math. I strive to have an influence on my students for the rest of their lives.

 Also, I am completely committed to lifelong professional learning by consistently learning how to improve my teaching style. I aspire to be the best educator I can be. In turn, I consistently make every effort towards reaching this goal. It is my love of learning that motivates me to teach and improve. Making learning fun and exciting has a positive effect on children’s lives by changing the student attitude towards learning. I believe that the role of a teacher is that of a leader where I must show the path, motivate, encourage, and lead by example. Teaching is more than a job, it is a responsibility and a privilege.

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