SCIENCE TEACHING EFFICACY: OVERCOMING CONSTRAINTS

by:

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Thinking accurately is important in learning any scientific concept. Most teachers believe that the kind of scientific learning every student must practice is how to think critically through understanding of facts and evidences instead of the idea of memorization. Effective teachers stimulate students’ curiosity and ability to connect learning to present situation. Moreover, Science teachers should be effective in teaching Science to students, for through it, teaching efficacy is determined. Teaching efficacy is the belief of the teacher to effectively deliver the lesson to students (Cakiroglu, 2012). In fact, teachers strongly claim that they are doing everything to teach students well, especially in Science. This might be true since most of the teachers nowadays are taking their graduate courses in different universities and are attending various seminars to strengthen their aptitudes in their different areas of specialization.

Despite of the above-mentioned efforts, the efficacy of Science teaching seems to be challenged by some constraints. In the study conducted by Roehrig and Luft in 2003, five constraints were identified that affect teaching and learning Science, to wit, understanding nature of Science, knowledge of the content, pedagogical approach to teaching, teaching beliefs and classroom management. These constraints exist due to the fear of most teachers in curriculum innovations and lack of excitement on new proposals, especially in the new trends of education (Chambers, 1979). The educational system is a complex system which is continuously changing. It may be due to the changes in the nature and demands of the learners in the recent generation. Resistance to change has resulted to the different hindrances in teaching Science with efficacy. If constraints affect the efficacy of Science teaching, then teachers should surmount such difficulties. To overcome these, teachers must be open-minded. This means that teachers must welcome
criticisms, proposals and new ideas which do not agree with what they believe in. These innovations will enable them to think critically and move out of their shells to see the world clearly. Another construct is cooperation. Cooperation allows teachers to share ideas, best practices and common interests. It also makes the work much easier. In teaching and learning, it is deemed to be very vital. Cooperation will pave a way for open communication between students and teachers. Furthermore, professional development is necessary to keep teachers updated with the current trends in the practice of their profession. Lastly, learn to manage stress. Stress is one of the factors that limits our ability to perform our duties effectively. Find some time to relax, chill and bond with family and friends.

Consequently, Science teaching is not an easy job. Science teachers are molders of the future and developers of the new brand of the society. Every teacher must overcome everything that may hinder his/her duties and responsibilities. Teaching effectively means knowing not only how to teach but what should be taught to the students to ensure efficacy.

References: