

THE PRE AND POST HEURISTIC CHEMISTRY CLASSROOM INTERACTION STRATEGY AS A TACTIC FOR ENHANCING EFFECTIVE TEACHING / LEARNING: THE KENYAN CASE

Samson M. Muthwii¹ and Rachael K. Nyamai²

¹Kenyatta University, Communication Technology Dept, School of Education
Nairobi-Kenya

0721690519; mbindyosammy@yahoo.com

²Kenyatta University, School of Education, Educational Foundation Dept, Nairobi-Kenya,
0720451803; rkakinya@yahoo.com

Effective classroom discussions are quite challenging to hold. Teachers' questions play an important role in this and without doubt they provide an essential discussion leading skill in a classroom. From a pedagogical perspective, classroom discussions serve quite a number of important functions in teaching/ learning, for example, students learn discussion skills, provide evidence of student thinking and involvement, provides the teacher with an opportunity to encourage change/impart positive attitudes to learning etc.

Teacher questions play an important role in the enhancement of teachers-pupil classroom discussions. Effective questioning plays an important role in sustaining classroom discourse. The ability to question effectively to generate a rich discussions requires tact. An effective pre-questioning and post-questioning (post and pre heuristic) tactics and dynamics provide a rich avenue for a chemistry teacher to usher his/her class into a realm of exiting classroom interaction environment suitable for learning.

This paper is written from a practical research experience in Kenyan Chemistry classrooms. In this study seven (7) chemistry teachers were involved. Their classes were visited and the classroom interactions were observed, audio-recorded, transcribed and analyzed using a fine grain schedule. The researcher constructed the fine grain instrument used to analyse the discourses. In this paper the instrument will be presented and discussed together with the results of the study.

The findings indicated that some of the teachers adhered to some pre and post-heuristic patterns and practices, some of which were not favourable for encouraging rich classroom discussions, hence a favourable learning environment, whereas others teachers provided rich interaction atmospheres by varying and using patterns which encouraged students' involvement in positive discourse.

This paper provides interesting insights and discussions which can be useful in the improvement of science education. The Kenyan experience will definitely be useful for others to learn from.